FINANCIAL STATEMENTS

THEIR TREATMENT AND INTERPRETATION

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PREFACE

THERE are many books dealing with Accounts, Balance Sheets, etc., but in the course of some years' experience as a lecturer on various aspects of Finance I have found a real need for a book dealing with the interpretation of financial statements from the point of view of one not expert in accounts or accountancy procedure. This volume is presented with the view of meeting this need, and many of those to whom I have lectured will, I hope, find that it embodies many of the points on which they expressed a wish for further enlightenment.

The section dealing with Holding Companies is an endeavour to show the real method of arriving at the consolidated position, and which, as far as I am aware, has not been attempted in the country before.

I would like to express my indebtedness to Mr. David Sirkin, F.S.A.A., F.S.S., and Mr. C. W. Johnstone, A.S.A.A., for their help in reading the proofs and for the numerous suggestions they have given to me.

A. LESTER BODDINGTON.

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1. PRESENT-DAY NEED FOR INFORMATION

The business man of to-day is faced with a multitude of problems largely unknown to his predecessors, for sweeping economic changes have occurred throughout the world since the Great War. Changing demand, fluctuating prices, varying costs, the burden of taxation, the imposition of tariffs, limitation of output, quotas, standardization and rationalization, the decentralization of control, the growth of the multiple-shop system, and the creation of great combines have added greatly to the work of the management of businesses. Scientific management is therefore essential, and to ensure this it is necessary that the controlling officers and/or proprietors should be kept informed of the progress and development not only of their own business, but of that of their competitors and of business generally.

Business to-day is really a science and the office may therefore be regarded as the laboratory, and as such must be equipped and staffed to carry out the work it is called upon to perform. In order to succeed in any form of trade or commerce to-day the business man must study carefully all the factors which enter into the production, buying, and selling of the goods in which he deals. He must know the

right time to buy, the correct price to pay, and the proper place from which to buy. He must place the goods upon the market at the correct moment to meet the demand for them as it arises, at a price which will ensure the maximum quantities being sold. He must study transport facilities and investigate and compare the costs of various methods of transportation which can be adopted in order to deliver his goods to the customers not only in the cheapest way, but in the speediest and safest manner. He must know how to create a market for a new product, or how to stimulate the demand for an existing one.

Financial conditions must be closely and carefully studied in order that he may know when it is advisable to expand credit, or necessary to contract it, or when it may be profitable to purchase goods and raise a loan in order to pay for them. If he be an importer or exporter he must be acquainted with the influences which cause the foreign exchanges to fluctuate so that he may pay or collect his debts at the most auspicious moment.

During the Great War and in the period subsequent thereto, great changes have taken place in business organization and methods. Formerly, the personal influence of the proprietor attracted business, nowadays the tendency is to demand such goods and services as are required irrespective of the persons supplying them or personal connections, either from the place (*a*) which is the most convenient, (*b*) where the price is cheapest, or (*c*) where hire-purchase facilities are available. Small businesses tend to be replaced by large departmental stores, while the chain-stores are daily increasing to the detriment of the purely local business, with the result that the head of a modern business house must rely upon others for the specialized and detailed work necessary, and must devote his efforts to deciding and directing the general policy. This means that he must be supplied with classified information which will enable him

to price changes is available, steps can be taken to reduce some of the expenditure. Many of the expenses cannot be materially decreased and in some cases no diminution is possible, e.g. rent, rates, wages, etc., as they are the subject of agreements, or other forces such as trade union rates, which are not under the actual control of the business.

3. APPLICATION TO PROBLEMS AND FORMATION OF POLICIES

Properly classified records are essential to efficiency. It is not sufficient to know that a profit has been made, it must be known where, how, and when it was made. The making of a profit is often taken as indicating a satisfactory state of affairs, but a careful analysis may reveal that the profit could have been greater but for certain sections or departments not conforming with the general standard, or that expenses in certain directions were out of proportion to the results obtained. In days of severe competition it is very difficult to increase turnover, but, provided efficiency is not curtailed in any way, profits can be increased by reducing expenses. Hence the greater the detail in which available information is classified, the more complete is the control which is obtained. On the other hand, a loss may not be due to inefficiency but to difficult outside conditions or factors which cannot be controlled from within, e.g. reduction in prices, the marketing of a competitive article, or the imposition of a quota. A good example of this is the Lancashire cotton trade which has incurred losses not only through competitive goods imported from other countries, but from the great demand for artificial silk garments which has caused the purchase of cotton goods to fall away.

Properly classified records will show the head of a business not only the results but where they have been achieved. He is thus able to determine where responsibility rests,

shown where changes or adjustments are necessary, whether additional assistance is required, where further responsibility can be placed, or development be considered. Similarly the period of the year in which demand normally rises or falls should be known and preparations to meet prevailing conditions made.

Business management calls for careful planning and sound judgment. The work of the manager is always difficult, but in these days of political and economic complications is much harder than when times are normal and prices steady. A foundation of accurate and reliable facts is the only one on which to build a financial and business policy for the future. An analytical study of the results of past experience and the conditions in which they were achieved will prove most helpful, for every action has certain reactions, and if these be known, fewer mistakes will be made. Accurate statements might show, for example, the extent to which a special form of advertising campaign had increased sales, or which of various forms of advertisement had achieved the best results. Information of this nature would enable the planning of a more extensive and intensive policy of propaganda at the lowest cost. Carefully kept records would do much to prevent wasteful expenditure, and/or ensure that the maximum benefit is obtained from any campaign. Similarly, it might be found that reducing expenditure might result in a more than corresponding fall in sales and a consequent reduction in profits. It would also be necessary to see that when the volume of business increases the cash receipts keep pace with the increased sales as otherwise it is obvious that the increase in turnover is being done by extending the credit terms. If this is not offset by longer credit being obtained in purchasing, or the introduction of additional capital, there will come a time when the cash position will be very serious and a crisis ensue.

Banks and other houses who grant financial assistance

are relying more and more on the facts obtained from proper and complete statements, usually in the form of accounts, when deciding what, if any, aid shall be given. No matter how good such statements may be, it is essential that they should be analysed in a proper manner. It is only from such statements that one can actually focus a spotlight on the real position of the business—and there seems no reason why business men should object to presenting such statements when asking for credit. In the U.S.A., bankers always require an applicant for a loan to submit a statement in a carefully prepared form (see Appendix A) designed to show the exact position of the business by tangible facts and not mere assumption.

4. PURPOSE OF CLASSIFIED STATEMENTS

As already indicated, many statements will be of a financial nature. The usual statement presented is one designed to show the condition of the business in a form easily readable and more quickly comprehended than would be possible from a survey of the facts shown in the detailed records. This statement is the Balance Sheet, and, if prepared and presented in a proper form, will not only be useful to the management, but will convey information to proprietors other than those engaged in management (e.g. shareholders), as well as to bankers, intending investors, creditors, etc., since from these statements it is possible to gauge the value of the assets as well as their nature, ascertain the liabilities and the actual financial condition, and see whether the business is in a strong or weak cash position. This statement, however, only shows the position at the date upon which it is prepared, and as soon as any further operations are carried out, some, at least, of the items will change and hence the position is altered. If the dealings entered into result in a profit, there are more assets belonging to the business, or fewer liabilities; but when

losses are incurred, the assets shrink, or alternatively liabilities become greater.

Another financial statement met with is the one which discloses what has been happening since the last Balance Sheet was prepared. In the case of a manufacturing business this statement comprises the Manufacturing, Trading, and Profit and Loss Accounts. A distributing or retail business has the last two sections only, while public utility or service undertakings (e.g. tramways, railways, gas, water, and electricity companies) call their statements "Revenue" Accounts. Non-trading and charitable concerns present their statements in the form of Income and Expenditure Accounts, or occasionally as Receipts and Payments Accounts. These statements show the value of the transactions carried out, the expenses incurred, the profit or loss, and the excess of income over expenditure, or vice versa, which result from the operations.

These main statements may, and often should, be supplemented by schedules showing details of particular items, or by statistical tables or graphs amplifying or explaining the general position.

Many businesses have separate departments, sections or branches, or subsidiary or auxiliary businesses, and it is essential that the activities and position of each should be known as well as that of the whole organization. It may happen that the business as a whole shows profits but some of the sections are not doing so well as they might, or are actually making losses, and hence the total profit is not as great as it would be if all branches were achieving equally good results. Trading and Profit and Loss Accounts for each section are not only desirable but necessary. Such accounts enable the departmental or branch managers to know what is happening within the sections under their control, but the management is enabled to check up the position of each section and co-ordinate its operations with

the general trend of the business, eliminating or improving those departments which are lagging, encouraging and developing those which are worthy of additional attention. Thus efficiency in the personnel is encouraged through the management becoming acquainted with what is happening. Inefficiency is also shown and can be dealt with, with the result that proper management is ensured in all directions.

5. ATTRIBUTES OF PROPER FINANCIAL STATEMENTS

The large number of different trades and the varying conditions under which each trade, or even business within a trade, operates, or the inherent jealousy with which competitors are regarded, make it impossible to plan any form of statement which would have a general application, though in some undertakings (e.g. railways, insurance companies, etc.) a uniform standard form of Balance Sheet is now in use, largely as a result of legislative requirements. Generally speaking, the form of statement to be used must be adapted to the individual business, though those for any particular trade will have many points in common.

To make the most of any statement it is essential that it be compared with others of a similar nature prepared at other times. While a Trading or Profit and Loss Statement shows the results achieved during the period covered, yet the results of that year may be due to some abnormal factor, i.e. a trade boom or slump which may not continue, or a change in the general level of prices, and hence, by comparing the results of that period with those of previous periods, it will be possible to see what changes have taken place. Inquiries can then be made into the reasons for any discrepancies which may be shown by the comparison. Merely to compare two successive periods is not enough, as one or both may be affected by some unusual circumstance. Supposing a new policy is put into operation in a

particular period (such as an extensive advertising campaign) and continued in subsequent periods, the full results may only be obtained after some time has elapsed, or even be cumulative, but a study of the figures over a series of years will enable the benefit or otherwise to be correctly estimated.

It will thus be realized that some form of tabular statement enabling figures for the same items to be compared easily is essential. Not only does this apply to statements of profits, but a similar procedure should be adopted with Balance Sheets, for, if the business be increasing, a larger stock of goods must be carried, unless there is greater efficiency in production or a reduction in the time of completion. Larger stocks will necessitate more working capital, additional plant and machinery may become necessary, and it is only from a comparison of a series of Balance Sheets that it can be seen whether the general position is being adjusted to the volume of business being done, and the changed conditions which exist. These comparisons will at once enable facts to be established, arguments supported, and the wisdom or otherwise of a certain policy determined.

In making comparisons, the actual figures are necessary, but frequently it becomes advisable to express these figures in relationship to some other figure or figures, and this is usually done by means of percentages. For example, two banks—the A and B banks—have cash balances of £450,000 and £150,000 respectively, and this seems to indicate that the cash position of A is three times as strong as that of B. If, however, the A bank owes to its customers £3,600,000, while the liabilities of B are £600,000, we find that the percentage of A's cash to liabilities is only $12\frac{1}{2}$ per cent (i.e. $\frac{450{,}000}{3{,}600{,}000} \times 100$), while that of B is 25 per cent or twice that of A. It is also not advisable to consider the amounts of profits only, but the relationship of such profits to the capital involved in making them. Again, an item of cost

may increase and we may be misled unless we consider the percentage it bears to total cost or some other factor, e.g. the expenditure on advertising in two successive periods was £10,000 and £30,000, a very material rise which would normally call for criticism, but if the value of the sales made in the same periods were £200,000 and £900,000 respectively, we see that our advertising cost was 5 per cent of the sales of the first period, but had fallen to 3·3 per cent in the second. Percentages enable us to see the relative importance of items. As we shall see later there are certain precautions which must be observed in their use, in order to guard against wrong conclusions.

6. USES OF BUSINESS STATISTICS

In the past, many businesses confined their records to those relating to the financial aspects, but with the changes which have taken place in recent years, and the growth of the departmental and multiple-shop stores, other records have become necessary. Such records, however they are obtained, have some bearing on the financial position and hence should be linked up with the accounting records, as each may throw light on the other, and serve to explain causes or conditions which are not apparent from the main statement. For example, the turnover (or sales) increases from £10,000 to £11,250 though prices had actually been reduced. The quantity records show that the numbers sold increased from 20,000 to 30,000 units, but the price per article had been reduced with the result that the profit per unit sold had fallen from 10s. to 7s. 6d. All these facts need to be known before the true position is made clear.

Some of the relationships which are important to efficient management are—

(1) The relation of borrowed capital to total capital.

(2) The relation of various classes of assets to the total of the assets.

(3) The relation of liquid assets (i.e. those easily and quickly convertible into cash) to current liabilities.

(4) The relation of net profit to capital used to earn it.

(5) The relation of gross profit to sales.

(6) The relation of net profit to sales.

(7) The relation of stock held to sales.

(8) The relation of amount owing by debtors to sales.

(9) The relation of costs and expenses to sales.

(10) The relation of average stock held to cost of goods sold.

The foregoing are intended to suggest the type of percentages which can be used in interpreting financial statements. Such ratios, however, are of little significance if taken only for one business. After a ratio has been obtained, there is no means of deciding whether it indicates a desirable condition or otherwise. Usually the business man knows from past experience what the ordinary ratio should be for his own trade, and thus has a standard by which to judge the efficiency, or otherwise, of the current results. If he is also able to ascertain the current general ratio common to his trade or industry he can at once see whether his results are better or worse than for the trade as a whole, thus showing the efficiency, or otherwise, of his business. Only the actual monetary value of sales is shown in the accounting records, and to know only the difference in the amount of the sales made is not sufficient.

The objects of management may be summarized as follows—

(1) To co-ordinate the various activities and departments, and to cause all operations to conform to the general policy and lines of development of the business as a whole.

(2) To eliminate waste, whether of time, material, or

personnel, and thus reduce the expenses of conducting the business.

(3) To foresee opportunities and to take advantage of them.

(4) To guard against adverse conditions.

(5) To increase production without increasing the cost of production per unit, and, if possible, to reduce such cost.

In brief the art of management consists of knowing what you want, and seeing that it is obtained in the best and most efficient way. The accounts of a business can hardly be said to record transactions so much as recording the results of transactions, and from the point of view of scientific management we do not obtain all the information which is necessary. The requisite data is largely to be found within the office, and is contained, *inter alia*, in the invoices, debit and credit notes, account sales and other documents which evidence the transactions which have been conducted, but such information will need classifying and recording.

Among other information which the management should obtain are the following—

(1) The time taken in the production of goods or the delivery of goods which have to be bought.

(2) The period which elapses between the purchase of goods, or the completion of their manufacture, and their sale (i.e. the period of turnover of goods).

(3) The quantities of the various classes of goods handled.

(4) The rapidity with which goods are sold at different times of the year, or in different departments.

(5) The minimum stock of any class of goods which it is essential should be carried.

(6) Whether the stock held should be increased or decreased at any period of the year. If stock be too large

for the requirements of the business then capital is locked up unnecessarily, while if it be too small the business may not be able to meet the demand for its product.

(7) What it costs to produce or buy a unit of goods in which the business deals.

(8) How much it costs to sell a unit of the goods handled.

(9) The costs of distribution or delivery of a unit of goods.

(10) Whether the cost of distribution per unit varies with different departments or classes of goods.

(11) Whether there is a variation in the rate of profit on various kinds of goods, or with different departments. If so, then steps could be taken to improve the position of the sections which disclose low rates.

(12) The areas over which the goods are sold.

(13) The most productive area or areas.

(14) Whether the quantities handled are increasing or decreasing.

(15) The proportion which cash sales bear to the total sales, and whether such proportion is maintained when increasing business is being done.

The efficiency with which a business employs the capital at its disposal is an important factor in determining its success or failure. Capital must be remunerated, and its inefficient use leads to a loss just as much as an unsatisfactory employment of labour, or utilization of material. Results alone cannot reveal the whole of the picture. It is necessary to ascertain the causes and effects and thus get a complete story which is not only true but gives the true perspective.

The management have three needs which must be supplied, viz.—

(1) The condition and position of their undertaking.

(2) The need for furnishing correct and precise

statements of the position of the business to others, e.g. shareholders and creditors.

(3) The ability to read and understand the financial statements and records of other businesses and of competitors in order to get a true understanding of the business conditions of those with whom they deal.

In these days many businesses take the form of joint-stock companies in which the general body of proprietors, i.e. the Ordinary shareholders[1] delegate the management to a selected few, known as the Directors. Such shareholders have no first-hand information such as is, or should be, in the possession of the directors, though, if the company be a public one, they must receive a copy of the Balance Sheet once a year, and also have the right to attend the Annual General Meeting of the company to hear the chairman give what is often a colourless report of the business activities during the past year. The shareholder is thus obliged to analyse the statements presented to him in such a way that he can at least appreciate what has happened. Unfortunately, few shareholders are able to do this and hence cannot question the directorate intelligently, and, indeed, many are content to leave matters alone so long as dividends are declared. If such people would only realize that the profit-earning capacity of a business is definitely linked up with its general position, and that the maintenance of its assets is essential to its well-being, then we might get more constructive criticism by proprietors with a resultant tightening up of the management, and more efficient directors.

[1] Preference shareholders stand in a different relationship to the business, and usually have no voting power, and hence no voice in the appointment of directors. An exception is often made in the case of Cumulative Preference Shares, which confer voting power if, and when, their dividends are in arrear for a stated period. These rights will be found set out in the Articles of Association of the company, which should be studied.

It is obvious, therefore, that it is the duty of the management to present their data accurately, and also in such a form that the essential knowledge for both management and criticism is obtainable, so that future policy can be pursued correctly.

Classified statements are only useful when used. One often hears the criticism that statistical work is merely the collecting of useless figures, but such criticism is only justified when the data obtained are not used by the person for whom they are compiled.

Business and industry need facts, but they also need analysis of facts. Fresh and continuous analysis is necessary, as changes are constantly taking place in many different directions.

Classification consists in separating facts according to some definite plan, arranging them in groups or classes according to certain characteristics, and then presenting them in a convenient and easily read and understandable form.

CHAPTER II

THE FACTS OF BUSINESS

1. WHAT IS A BUSINESS FACT?

We have already seen that the accounting records of a business can be relied upon to give financial information, but that these show only results and not the causes. The causes may be due to internal or external factors, and usually they can only be obtained from sources outside the accounting departments. It is not necessary to draw a sharp line of demarcation between the two sources except to appreciate that financial records or accounts always show monetary figures, and that any statement containing other numerical facts forms a Statistical Table. This additional information must be enumerated or estimated according to a selected standard which must be accurately defined. The facts must be collected systematically for a specific purpose, treated and presented in a uniform manner, and must be definite and measurable.

These facts may be obtained either from inside or outside the business, but obviously it is to information already in our possession and which applies to our special sphere that our attention should first turn. Among this will be data relating to the production, selling, marketing, transportation, and financial aspects, all of which are of great importance. In a manufacturing business the supply of raw material must be assured, and information regarding sources of supply, quantities demanded, time when required, and the rapidity with which supplies can be obtained should be

available. If production is such that various processes have to be passed through, it is essential that the flow be uninterrupted from section to section if production is to go on unhampered and free from delay. The sources of demand can also be ascertained from internal records as well as the strength of such demand and the times of the year when it materializes. Many other questions can arise, among which are the following—

(1) Can the cost per unit of production be reduced by increasing output, and, if so, where can the additional goods be sold?

(2) Are all consumers demanding similar quantities?

(3) Is there any locality in which the demand is greater or less than the average?

(4) Are exports increasing or decreasing?

(5) Does the overseas demand differ from the internal either in nature or in time?

(6) Are there racial prejudices, national peculiarities, or trade customs which affect either the product or the demand therefor?

(7) Are customers demanding different qualities or types of merchandise?

(8) Is the business increasing? If so, how is the additional capital required being obtained, and is the increase in capital commensurate with the needs of the business?

(9) Is the necessary additional labour available to enable increased production to take place?

(10) Are profits increasing with the additional capital introduced and to the same degree?

It must be remembered that the principal object of a business man is the making of a profit. What is profit? It is actually the difference between the cost of the goods sold and the prices realized, and when this definition has been accepted the following questions call for answers—

(1) What factors determine this cost and fix the prices?

(2) Why are prices fixed at present levels?

(3) What relationship exists between costs of production and prices, and between wholesale and retail prices?

(4) Is a market capable of expansion?

(5) Are all sections of a market capable of equal extension?

external [illegible]

External facts are equally essential and important, and the following information will probably be required—

(1) Are there any restrictions or taxation which are likely to affect distribution?

(2) What is the policy of the appropriate trade unions regarding wages and working hours?

(3) What effect would any suggested alterations in either wages or hours have on the cost of production?

(4) Are changes taking place in the number or location of the population, or in the class of people using the goods—and, if so, how will such changes affect the demand or methods of distribution, or both?

(5) Is the commodity one which has an elastic demand, as any change in the income of the community may seriously affect the demand?

Each class of business has its own peculiar operations to record, and it is therefore obviously impossible to lay down the various classes of statistics which should be recorded, or the uses to which they should be put. Every business, large or small, has its own problems, some of which are periodic. The data to be collected and the uses to which they can be put must be decided separately for each business. The problems to be solved may, for example, relate to the advisability of commencing a campaign of advertising, of scrapping old, and installing new machinery which increases output or reduces costs, of changing sales methods,

or adjusting methods of production consequent upon alterations in labour conditions.

2. ATTRIBUTES OF BUSINESS FACTS

A business fact is always relative. "Failure" is not absolute, neither is "success." "Poor trade," "successful advertising," "high interest rates," and "steady prices" are all relative statements. The measurements must be considered in relation to the problems and the conditions to which they apply. For example, the sales of a concern for two successive periods are given in a number of £'s sterling, but this may be the only thing in which they are alike, as the nature of the goods may be different, the quantities altered, and even the location of the demand changed. In one period the sales may have been due to an extensive circularizing campaign, but in the other canvassing may have been adopted. Thus things which answer the same name are not, in actual fact, the same in all respects. Hence we must standardize our facts and ensure that when a term is used it means the same thing every time. Statisticians call this homogeneity. If homogeneity be not present, there can be no real comparison, and fallacious results will follow. The term "wages" is a good example of this, as though all payments for labour fall under this heading one cannot compare the wages of an agricultural labourer with those of, say, a mechanic; or the wages of a foreman of a road-sweeping gang, with those of a foreman supervising the erection of an intricate piece of machinery. The progress of trade is generally measured by output of steel or some other basic commodity, or by the value of our exports, but such measures are merely indications and cannot be applied to any particular business handling those same commodities.

Business to-day is conducted on narrow margins of profit, and the source of profits and the way they respond to changes in price, etc., can only be determined by analysis.

This means proper comparison, and this in turn requires the adoption and use of standards.

The first requirement of such standards therefore is homogeneity, and the second is that the selected standards must be representative of the whole of the data. There must be no bias in their selection or computation. Abuse of statistics often arises from a desire to use figures or facts to prove a particular case and for this purpose a selection is made of data which support the requisite view. The *whole* of the facts should be considered and from them the results ascertained, but if this be not possible and only samples are used, then the selection of such samples must be made in such a manner as to eliminate any possibility of only those of a biased nature being obtained. It should be the function of facts to reveal truth, not to conceal or distort it. We would not take the men of one of the Guards' Regiments if we want to ascertain the normal height of men of the Anglo-Saxon race, neither would we take a number of large and successful undertakings and assume that the results they achieve are those of the industry of which they are members. If, however, we get representative examples, the Law of Probabilities ensures that the attributes they possess will be those of the mass as a whole.

Facts must, of course, be germane to the problem before us. Facts collected to solve one problem are unlikely to apply to another. Facts must also be stable, i.e. they must relate to periods and conditions which are in their very nature uniform. In business, for example, the working capital (i.e. the amount which is available to finance the production and trading activities) is often different in two consecutive periods owing to varying amounts transferred to Reserves or to a difference in the profits retained in the business. Facts may differ temporarily, but over long periods change but little. For example, prices may advance on the whole over a very long period, but at any one moment they

may show an actual small fall. Observations over a long period of time are to be preferred to short-term ones, as the latter may be purely local or seasonal, and not representative of the real position.

The data recorded must also be accurate. This requirement does not, however, prevent approximation of large numbers, e.g. giving population to nearest thousand, or profits to the nearest £, as any differences which may arise through this procedure are relatively small and hence do not affect the result to any appreciable degree.

3. PRESENTATION OF THE FACTS

As already mentioned, classification consists in separating facts into groups in which each fact possesses certain specified characteristics selected according to a prearranged plan suitable to the problem under review, and then of presenting them either in a table, or in graphic form, whichever is convenient to the person for whose use they are intended. Whatever form the presentation may take, simplicity is the primary essential. An intricate table of figures may appeal to an accountant but be unreadable by a business man, whereas a graph showing the movements in the form of a curve is compelling and easily understood. The table shows details, but tends to obscure the tendencies, whereas a graph shows the tendency immediately, but details are either not shown or their significance is lost. Tables should be prepared in all cases, as, even if a graph is to be used, the tables systematize the data, enable relationships to be shown, facilitate addition and summarization. There need be no set form, and each table can be prepared to give just the information required in juxtaposition to other related and pertinent facts. Tables should be made attractive, concise and emphatic, self-contained and self-explanatory. The title should be a clear and unambiguous epitome of the contents.

Graphs present the data in such a way that relationships are clearly seen, they appeal to the eye, they add to the meaning of facts by throwing them into relief. Graphs do not replace tables but supplement them.

In presenting data in graphic form certain fundamental rules must be observed,[1] and though it is not within the scope of this work to go into these fully, certain elementary precautions may be emphasized.

Firstly: Avoid any figures which need to be read in two or more directions.

Secondly: Avoid confusing the apparent with the real. Lines and bars are better than areas or cubes.

Thirdly: See that the form shows the facts as they actually are.

Fourthly: Do not put too many curves on one diagram. If comparison is to be made, see that the lines representing the data are easily distinguishable and do not confuse the eye by inserting other material not relevant to such comparison.

4. TYPES OF STATEMENTS

Business statements fall into two main groups—the first showing a condition at a stated point of time, and a good example of this group is a Balance Sheet, and the second showing the course of events over a given period of time, and in this category, of course, falls the Trading and Profit and Loss or kindred Accounts. The one is the complement of the other. The two main statements may be supplemented by subsidiary statements which either give more detail than the main statement (e.g. a schedule of the debtors or creditors), or give additional information intended to amplify the other (e.g. figures of previous periods to enable comparisons to be made). Other supplementary statements

[1] See the author's book, *Statistics and Their Application to Commerce*.

may have no direct connection, but disclose information which will be of importance when considering or analysing the results shown in the main statements, e.g. cost records and details of sales by areas, etc.

These supplementary statements will be changed or replaced by new ones whenever some alteration takes place, thus keeping the main statements up to date and giving information of new developments or tendencies.

The main statements are usually in a condensed form designed to give a bird's-eye view of the position or conditions, or, in the case of annual accounts presented to shareholders, to give a correct general statement which, however, omits details which might be useful if used by a competitor. In such cases supplementary statements can be supplied to the management giving detailed particulars of many of the items. For example, the Balance Sheet discloses a figure for stock-in-trade as a whole, but the schedules of stock will show exactly the nature of the goods held, the quantities, and their value. From the condensed statement the general state of affairs can easily and speedily be seen, and, having got the true perspective, details can be subsequently analysed. The main statements show and emphasize the important points and their relationship one with the other. Causes can then be traced from the detailed summaries. As already stated, such statements are, however, "Static." In the second or what may be called the "Dynamic" group of statements (i.e. the Profit and Loss group) the statements show the results obtained over a period and how those results were achieved, and from them, or their supplements, the causes of changes can be traced. For example, the statement may show that some item of expense, such as wages, has increased materially. The exact reason is however not disclosed, but a list of workers and scales of wages may show that wages have increased materially without any additional workers being employed,

thus reducing profits or increasing costs without any corresponding increase in output or profit-earning capacity.

5. INACCURACIES

To analyse and apply correctly any form of statement, whether financial or statistical in its nature, it is absolutely essential that such statements be accurate. Any statement which is incorrect or misleading will lead to fallacious reasoning, and hence action based thereon will give results different from those expected.

Incorrect statements are not necessarily only those which are intentionally misleading, but may include statements which have been prepared from insufficient records, or from records which do not give a clear view of the actual conditions. For example, a misconception may be obtained from a Balance Sheet from one of the following causes, apart from any intentional misrepresentation—

(*a*) Unfamiliar or vague terminology, or the use of technical words or phrases not in general use.

(*b*) Improper presentation.

(*c*) Wrong principles used in the books from which the statement is prepared, e.g. incorrectly charging items of expense to the asset in connection with which it is incurred, thus increasing the latter.

(*d*) Incorrect or incomplete records having been kept.

In the case of companies the items (*b*), (*c*), and (*d*) are not likely to arise owing to the necessity of audit, but even in the case of proper audit technical terminology cannot be entirely eliminated, and all those who desire to analyse accounts properly should know exactly how they are constructed. If, however, terms not in common use are used, it is essential that their meaning be given by means of descriptive definitions or explanatory footnotes. Many trades have terms peculiar to them, or a procedure which is

not common, and watch must be kept for these in order that they may be elucidated or eliminated. A good example of unusual procedure is to be found in the accounts of rubber-producing companies where the stock of rubber in hand at the date of the Balance Sheet is usually valued on the basis "At prices since realized" in cases where the stock has been sold between the date of the closing of the accounts (i.e. the date at which the Balance Sheet is made up) and the date on which they are completed for presentation to the shareholders. The usual procedure is for stock to be valued at "Cost or replacement price, whichever is the lower." In the case of rubber companies, therefore, profit or loss is taken on sales after the close of the account, and thus we really obtain the profit or loss from the sale of the crop produced, rather than on the sales of a particular period. Usually profit is calculated only on the goods sold before the accounts are closed.

It should be clearly understood that the accuracy of accounts cannot be taken for granted, though, when audited, one is at least sure that they are a true statement as shown by the books supplemented by information given by the officers of the business, but even then, as will be shown later, the valuation of the assets is often a matter of opinion and the auditor has but a limited responsibility in many cases—nor can he decide on the form in which the information is presented. The Companies Act of 1929 does require certain essential information to be disclosed in order that shareholders may be better able to ascertain the position, but if there be wrong grouping of items, omission of pertinent facts, or mistakes in the value at which stocks are included, then erroneous accounts will result. The systematization of accounts will at least assist the trained observer to detect inaccuracies, or cause him to ask questions. Inaccuracies may be due to intention, in which case the question of fraud will arise. Lack of knowledge is however more often the

cause of inaccurate statements. In the former class there will be the question of adequate allowances for depreciation on assets. One occasionally finds cases where either too much or too little depreciation (and sometimes none at all) has been provided with the result that the real profit for the period is wrongly stated and the true value of the assets not shown. In the latter class will fall the grouping of unlike items together, e.g. treating repairs which really maintain the asset in a working condition as an improvement and thus add to its value, or charging the cost of small assets to an expense account.

A statement that, in the opinion of the reader, shows too favourable a position must be questioned even more closely than one which discloses a less favourable position than one expects. By comparison with previous statements of the same house, or the position of other businesses in the same line, one gets a very good idea of what is happening. Thus if the profits of a department are unusually large, the administration should examine the appropriate charges in respect of the various items of expense. A comparison of the percentages of profit in previous periods, or with similar departments, will probably disclose the section to which special inquiry must be directed. This will disclose efficiency or inefficiency. It cannot be too strongly emphasized that the inaccuracies can only be traced by means of comparison or relationship. This may be illustrated by the story of a certain traveller who, after a continental selling trip, put in an expense account for £150 which was criticized as very large, but inquiry showed that he had obtained orders amounting to £15,000, so that the expense ratio was only 1 per cent of the sales made, whereas the general ratio of sales in the business in question was 1½ per cent. Thus, large though the item appears to be when the amount only is considered, it is smaller than normal when the due perspective is obtained.

It must however be emphasized that even relative statements may lead to wrong conclusions unless all the figures from which the computation is made are given. Thus, if we are only given percentages we may get false impressions. Suppose a company in four successive years pays a dividend of 10 per cent but in the fifth year only pays 7 per cent. If no other information be available we might assume that profits in the fifth year had fallen, but if the actual figures were given we might find that in the first four years the capital was, say, £100,000 and divisible profits were £10,000, whereas in the fifth year the capital had been increased by £200,000, and though available profits had risen to £14,000, the rise in profits had not been proportionate to the increase in capital.

Reference has been made to the results of other businesses in the same trade, and if these were available it would at once be possible to see whether the results achieved by the business in which we are interested are equal to, better or worse than, those of its competitors, and so the efficiency of such business could be measured. The percentages of gross profit will, in most instances, be fairly constant in all firms engaged in the same line of business, though net profits will naturally vary as the overhead or management expenses differ materially. If, therefore, the relationship of gross profit to the turnover be not the same, one gets an indication either of an error in the preparation of the statement or of efficient or inefficient management.

6. STANDARDS FOR COMPARISON

It thus follows that to detect such inaccuracies, comparison must be made between present results and those of some previous period or periods, or as previously suggested with some standard representative of normal conditions selected for that purpose. The latter procedure is probably preferable, for, as already shown, any one period

may be affected by some abnormal conditions and comparison be fallacious, whereas if a standard be selected such as the average for a number of years, the abnormal results in one direction will tend to be offset by those in the other. These standards will vary in both form and nature according to the circumstances, but there are certain essentials which all such standards must possess, e.g.—

(1) *The standard must be as simple as possible.* This makes it easy to understand and apply, and thus promotes efficiency and economy. Difficult or complex procedure often results in errors and is apt to be costly in operation.

(2) *It should be sufficiently comprehensive and flexible to fit all conditions.* Variations in the normal routine are often necessary in most businesses and the procedure must be sufficiently elastic to provide for these.

(3) *It must be progressive and adaptable to changing conditions.* It must not be an arbitrary one which only applies to the present, but must alter with changes which are constantly taking place.

(4) *It should be obtained by scientific investigation.* It must take into consideration all the anticipated conditions under which it is to be used. It must not be selected by guesswork or haphazard methods.

(5) *It should be subject to constant review to determine its accuracy.* It must therefore be capable of revision.

(6) *It should be stated in such terms that it is possible to obtain easily a comparison between actual performances and the standard.* To make the standard effective, there must be prompt and constant comparisons between the actual and the standard performances. In establishing a standard, consideration must be given to the method by which the actual performance is to be compared. For example, in preparing budgets, the estimated expenses, sales, and production should be classified in the same

manner as is used in the accounts. The actual figures as shown by such accounts can then be compared with the estimate easily and quickly.

7. SPECIAL STATEMENTS

There is a very extensive field for using tables profitably quite apart from data relating to Balance Sheets or Income Statements. The management will have special investigations made from time to time of different factors and varying phases of the business. This will involve the compilation of special data relating to the immediate problem from the records available, and will be presented in such a form as to throw light upon the phase under investigation. Examples would be—

Cost of special forms of advertising per unit of sales made.

Analysis of sales by districts.

Analysis of classes of goods demanded in different areas.

The table given on page 31 shows the result of such a special investigation, and is inserted by kind permission of "The Rotary Wheel."

The carrying out of such investigations intelligently and the presentation of the results in a form easily assimilated is becoming increasingly important. Care must always be taken to see that the collection and presentation of information do not prove more costly than the results can justify.

8. PSYCHOLOGY OF A GOOD STATEMENT

A good statement is one that presents facts clearly and in an attractive fashion. Unless the statement is neat and attractive it may fail to convey the information, as it fails to "catch the eye" and engage the direct attention desired. The psychology of a good statement lies in its ability to command attention, and hence while being attractive it

THE AVERAGE ROTARIAN

As an all-round Buyer, as shown by the following percentages of *affirmative replies* to a recently issued Questionnaire

PERCENTAGES	25% 50% 75% 100%
MOTORING	
Cars owned	†102%
† 81% own a car, 21% more than one	
DRINKING AND SMOKING	
Drinks beer or cider	50%
" wines or spirit	47%
" definite brands of above	9%
Smokes cigarettes or pipe	60%
" cigars	46%
" definite brands of above	13%
NECESSITIES	
Buys razors and blades	89%
" definite brands of above	40%
" " " shaving soap	53%
" " " dentifrice	44%
" " " shirts	16%
" " " collars	17%
" " " shoes	21%
"Supports his tailor pretty well"	91%
TRAVEL	
Tours in the British Isles	80%
Frequents hotels	48%
Goes abroad	54%
Takes holiday cruises	23%
Flies	8%

PERCENTAGES	25% 50% 75% 100%
GAMES AND HOBBIES	
Is interested in wireless	86%
" " golf	44%
" " music	51%
" " gardening	69%
" " dogs	58%
" " other games and hobbies	46%
OFFICE EQUIPMENT AND SUPPLIES	
Buys typewriters	72%
" other office plant	48%
" print	64%
Advertises	56%
BOOKS AND MAGAZINES	
Buys books and periodicals	67%
*OUR OWN PUBLICATIONS	
"Throws The Rotary Wheel and Service away unread"	2%
Merely "skims them through"	28%
Reads them "pretty thoroughly"	70%
Has women-folk who read them	65%
Takes notice of our advertisements	75%

* The favourable percentages under this section must be somewhat discounted, because those who troubled to answer the Questionnaire would obviously tend to prove a higher percentage of readers than those who did not do so, even though the Questionnaire was distributed indiscriminately apart from the Publications.

must also be simple and easily understood. Too elaborate or too many statements are as bad as none at all, as the head of a large business has not time to wade through innumerable reports and figures. The statements should be in summary form and be such as to enable him to see if anything is going wrong and then to call for details which will show exactly what has happened.

CHAPTER III

TREATMENT AND INTERPRETATION OF BUSINESS STATISTICS

1. WHAT ARE STATISTICS?

It will now be realized that statistics consist of tabulated statements of *comparable* numerical facts. Figures set down but not capable of comparison with other figures may be tables of facts, but they are not statistics. Thus, the Profit and Loss Account of a business for any particular year, though it sets out items of income and expenditure, cannot of itself be described as "statistics," but a statement that shows side by side the various items in the annual Profit and Loss Account of a business for a number of years might truly be dignified by the name of "statistics." Various attributes which data must possess to make them comparable have already been given.

2. STATISTICAL COMPARISONS

The principal comparisons with which statistics deal concern—

(a) the same thing in the same place at different times, e.g. the quantity of stock possessed by a business at different dates;

(b) the same thing at the same time in different places,

e.g. the sales of motor cars in a given month in different countries;

(*c*) a thing in relation to some larger thing of which it is a part, such as the *proportion* which the sales made by a certain department or branch bear to the total sales of a business;

(*d*) a thing in its relation to some other thing which has some influence upon it, e.g. the effect of weather conditions on attendance at garden fêtes, or on the sale of umbrellas, etc.

Intricate and involved as some statistical statements are, many and complex as the comparisons may seem to be, they nearly all resolve themselves into simple judgments of magnitude. Whatever the question may be, the result is always one of increase or decrease in one or more of the factors shown. The consequences which may, or will, follow from these changes are an entirely different matter and to obtain these entails the question of judging cause and effect. The consequences themselves will not be shown by the statistical statements; they must be read into or from them by the person for whom the data have been obtained and for whose use they are intended. It is in the use to which the statistics are put that their utility lies, and it is the faulty use of them which gives rise to many misconceptions and criticism of statistics. To understand and use statistics successfully, two essentials must be possessed by the user, viz.—

(i) a sound knowledge of the principles governing the presentation of the facts in statistical form, and

(ii) a broad general knowledge of business practice and a close acquaintance with the conditions present in the facts being studied, whereby the results will be ascribed to the correct causes, or the right inference drawn from the data given.

It is impossible, when dealing with business in general, to lay down in detail the statistics which should be prepared for the information of the persons concerned in the management, because they will vary with each trade and also with each individual business within that trade. There are, however, some facts which are common to all businesses, be they manufacturing or producing, merchanting or distributing, or engaged in selling service rather than goods. In order to provide income for itself, every business must sell either goods or services. All other operations are incidental to this production of income, and hence statistics of the volume of sales are of primary importance. Before sales can be made, the product must be in a condition to be sold or the services carried out, and, as the difference between the value of the sales effected and the production or purchasing cost of the goods sold or services rendered is the profit made or loss incurred, it becomes necessary to prepare statistics of such costs of the goods or services as well as those for the profit and loss. Without accurate costs, many statistics are of limited use. Costs records therefore offer a very attractive source of special analysis and reports, such as—

(i) comparison of costs over periods and between various forms of the product;
(ii) comparison for several years of elements of cost on a percentage basis;
(iii) analysis of the various classes of expenses.

3. SEQUENCE

Probably the most common of all comparisons is that which compares the same thing at different periods as in (*a*) above. Thus the sales of to-day are compared with those of yesterday, or with the same day last year; the output for this month with that of the same month last year, or with

the selected monthly standard, and the year's profits with those of the previous year, etc. In all such comparisons we have only two terms and each may be expressed by its relationship to the other, e.g. one year's profits may be expressed as a percentage of the previous year's; or the results of the first of the two years as a percentage of the second. Thus if the profits for two successive years are £20,000 and £25,000 respectively we can say that the second year's profits are 125 per cent of the first, but it is equally true that the first year's profits were 80 per cent of the second.

Generally we find it customary to compare the latest with an earlier figure and to regard the present as a variation of the past. Whether this is a correct procedure depends upon the circumstances, and is not necessarily revealed by the figures themselves. If, for example, the results of the second period may be regarded as normal, then the second statement is probably the better in use, as it is less likely to give a false impression of the position. It is usual, however, to find that when standards are used they are obtained from the results of the past. Whichever method is used, great care must be taken to show the real position in order to avoid any misunderstanding.

Profits are often expressed in percentage form and here again confusion may arise if care be not taken to indicate the base on which the percentage calculation is made. An article which costs £100 is sold for £125; thus the profit is £25, which is 20 per cent of the selling price, but 25 per cent of the cost price, and unless it be stated upon which base the computation is made we may get a wrong idea of the position. It is sometimes argued that a business man cannot make 100 per cent profit, but if the calculation is based on cost and not on selling price it is possible, e.g. if an article which was sold for £200 cost the seller £100, then he makes 100 per cent profit on his cost. It would be an extremely useful

thing if uniform methods and definitions were put into operation by business men, accountants, bankers, and economists, but as most business men add, say, 25 per cent on to their cost price to obtain their selling price (such amount being known as "mark-up") and then, having sold the goods, state that they have made 20 per cent profit, uniformity is difficult to achieve. Again, if we are expressing the prime cost as a percentage of sales, any change in selling price will, to the extent of the change, affect the conclusions to be drawn. When an article, the prime cost of which is £1, sells for £4, the prime cost is 25 per cent of the selling price. Let us assume that the selling price advances to £6, then, if prime cost remains the same, it is $16\frac{2}{3}$ per cent of the sales price. If, however, the prime cost increases to £1 4s., then the percentage of prime cost to sales is only 20 per cent, or five points less than before. It is necessary to see that changes are stated in a uniform manner as otherwise we may draw wrong conclusions and assume things are better than they really are.

Ratios are often more informative than percentages, as the relationship of the actual figures is then disclosed, and fallacious conclusions are avoided. Thus to state that sales of a certain commodity handled are increased by 50 per cent while another shows an increase of only 10 per cent would stress the former, but it might be found that in the first case three articles were sold as against two, whilst in the second the volume of sales had increased from 1000 to 1100. The ratios, however, would be as 3 is to 2 and as 11 is to 10 respectively.

4. IMPORTANCE OF THE BASE WITH WHICH COMPARISON IS TO BE MADE

It should be a primary rule when making comparisons of data in a sequence that the base with which comparison is to be made should not be in any way abnormal. If in any

period there is great trade activity or depression, a material and unusual change in price-level, heavy non-recurring expenses (such as a special advertising campaign), or a change in the nature of the demand, the results are not normal, and such a period should not be used as a basis for any comparisons. Behind all forms of comparison is the rule "Like should only be compared with Like," or in other words there is the important reservation "All other things being equal."

(*a*) Yearly Results

In business the common time unit is usually a year, though such year may end at any time convenient to the management. Some companies and firms prepare their financial statements half-yearly, but, even so, one of the statements usually shows the results for a year and hence it is generally on the basis of a year's results that comparisons are made. Comparisons of one year with the preceding one, however, frequently entail comparisons with a period showing abnormal results, which, as shown above, may lead to fallacious conclusions. Let us assume that the financial results of a business for two successive periods are as follows—

	1st Period	2nd Period
Amount of Sales	£150,000	£165,000
Gross Profit	50,000	55,000
Expenses	40,000	44,000
Net Profit	10,000	11,000

At first glance it would appear that 10 per cent more business had been done, and this might be so, but if prices in the second period were 10 per cent higher than in the first and this price increase was general to all commodities in common demand, then only the same amount of business

has been done, and, moreover, though the profits were also 10 per cent greater, the proprietors are really no better off as the *purchasing power of such profits* is only the same as that for the first period. Actually under such conditions the financial results could show an increase, but the volume of business done be less than before. Such data are not comparable, and adjustments will have to be made before accurate conclusions can be drawn. An example of such elimination will be found on page 59.

Figures in certain circumstances may show a stationary condition, or even a decrease, and yet be highly satisfactory to the management of the business. *The true test of any business is to be found in its relation to the general trend of business in its class.* A house that is able to maintain its *volume* of sales at a profit while all its competitors are showing diminished returns is in a stronger position relatively, and is really gaining ground in the trade as a whole. If it be possible to ascertain the percentage of sales of a business to the total made by the whole of the trade, this question of progress or otherwise would at once be decided. In the export trade such percentages can be obtained with the help of the Board of Trade returns, but in internal trade the figures are not usually available, but some guide can be obtained from the published results of companies operating in the same field.

Another example would be where the sales in an area have declined but it is found from the returns of the Census or the reports of the Registrar-General that the population has fallen. The true test would here be found in the consumption of the commodity per head (*per capita*) and, if this were higher than before, there has been an increase in demand, even though the actual sales were lower.

In a similar way, a change in the quality of the article will alter the position materially as the following statements of cost will demonstrate. Let us assume that the *quantities*

of raw material used in the second period were 50 per cent more than in the first, but the quality was inferior, and cost only 60 per cent of that used in the first period, that the output per worker remained the same, and that the factory was capable of producing the extra number of units without any increase in the factory or general expenses.

	1st Period	2nd Period
Cost of Raw Material	£20,000	£18,000
Productive Wages	10,000	15,000
Factory Expenses	6,000	6,000
Factory Cost	£36,000	£39,000
Management Expenses	4,000	4,000
Total Cost	£40,000	£43,000
Selling Price (Factory Cost plus 20%)	43,200	46,800
Actual Net Profit	£3,200	£3,800

Thus, while the goods produced and sold were 50 per cent more than those handled in the first period, the raw material cost 10 per cent less. The factory cost of the goods produced was increased by only $8\frac{1}{3}$ per cent, while the net profit is $18\frac{3}{4}$ per cent larger than in the former period.

The spreading of the factory and general expenses (usually called "Overheads") over the larger number of units produced resulted in a reduction of the cost per unit, but, if general expenses had increased, as they might have done, owing to, say, commission having to be paid on the sales, the result might easily have shown a diminished profit.

It will now be realized that unless one considers all the relevant factors it is very easy to draw wrong conclusions from the presentation of data.

Annual statistics are useful only as showing general

tendencies, e.g. the Profit and Loss Statements show what profit has been made or loss incurred, but, as stated before, they do not show how or when the results were achieved. Leakages may have commenced early in the year and gone on unnoticed, opportunities to change the policy or procedure passed over through not being known, changes in the nature of the demand not discovered, wastage in production or increase in costs gone on without the knowledge of the management, and hence there is no effective control because the period covered by the statements is too long. Not only is a year too long, but frequently there is still the further delay after the close of the period while the statements are being prepared and audited, and some yearly accounts are not available for the proprietors till several months after the close of the financial year. Thus, the accounts of a certain company for the year ended 30th June, 1935, were not signed by the auditors till the 7th September of that year and considered by the shareholders at their Annual Meeting on the 30th September, 1935, i.e. three months after the close of the financial year. Where a business has branches abroad the time is often longer still. On the other hand our great banks make a policy of presenting their accounts to the shareholders within a month of the close of their financial year, though, in justice to trading concerns, it should be pointed out that, in the case of banks, there are no stocks of goods to be taken and valued.

(*b*) Monthly or Four-Weekly Results

In these days when economic conditions change so rapidly and governments show an increasing tendency to exert control over business, no organization ought to wait until twelve months or more have passed before it knows the extent of its gains or losses, for in the meantime its profits might be so seriously affected by adverse causes that recovery becomes impossible. If figures are presented more

frequently, the effects of any adverse circumstances will be quickly seen and steps taken to check them, while full advantage can be taken of favourable movements. Now that office machinery is so highly developed, there is little excuse for not preparing frequent statements, or taking too long in their preparation.

The foregoing remarks regarding yearly results apply with equal force to monthly statements. In comparing results month by month, however, we can at once see any seasonal fluctuations which occur. The extent to which such periodic changes in turnover take place can be ascertained from past records, and steps must be taken to note any unusual changes which may be present and the reasons. Seasonal changes may depend on weather conditions rather than on time, and the thermometer readings may give a clue to the delay in, or earlier demand which is shown.

A point which must receive attention is the distribution of the trade. If no marked seasonal variations occur, then the difference between the returns of one month and another will normally be slight. Changes may be accounted for by the fact that owing to the months being of different length, there is not the same number of Saturdays or other abnormal trading days. If Saturday be the best business day of the week and a month in one year contains five Saturdays whereas in the following year there are only four, the returns for the complete month are bound to show a material difference in the amount of the sales. If the differences in the results are not too marked, it is quite a good procedure to reduce the figures to daily averages and compare these. However, such a comparison entails much work and in many cases the trouble is not justified.

If accounts are prepared on a calendar monthly basis, much work is entailed by the fact that we meet with broken periods of less than a week, which necessitates calculating the accrued wages and other charges for the odd number of

days. These difficulties can be overcome by preparing all accounts and statements on a four-weekly basis instead of upon a calendar month. Such a procedure ensures four actual wage payments while annual charges can be divided by thirteen instead of twelve. Any statements prepared on this basis will contain the same number of days of the week and thus facilitate comparison with past periods. Adjustments are thus reduced to a minimum and much work and calculation saved.

Even such a procedure however does not guard against certain holidays. Easter is a movable festival, and the date of Whitsuntide is affected by the date on which Easter falls; thus a period may include one of these holidays in one year but not in the next, and allowances must be made for it. The following extract from the *Electrical Times* illustrates the need there is for care in this connection.

THE TREACHERY OF STATISTICS

A striking instance of the futility of comparing the working results of any one month with those of another, either in exports or imports, or in the output of electric generating stations, is seen when we place the figures for last April side by side with those of April, 1932. For instance, the Electricity Commission reports that the electrical energy generated fell from 988 million kelvins in April, 1932, to 952 million in April, 1933. Shall we abandon ourselves to agony, rage, despair? By no means! April, 1933, contained one Easter and five Sundays, total working days 20, counting Saturday as a half-day only. April, 1932, however, contained no Easter and only four Sundays, total working days 23½. Incidentally we seem to remember that last April was considerably warmer than April, 1932, but we have no need of this factor to explain the falling off in this year's April. It would not be correct to multiply the 952 million units by 23½ over 20, producing a figure of 1118 million units to compare with the 988 million of April, 1932—an increase of more than 13 per cent—for the non-working days supply a stabilizing component which upsets all such calculations. But it seems probable that last April brought a healthy increase per average working day, whereas it is reported as showing an important decrease for the whole month.

ELECTRICAL EXPORTS

Turning to the question of electrical exports as recorded last week in the Board of Trade returns, the category "Electrical Goods and Apparatus" for April this year totalled £438,598 as compared with £478,233 for April, 1932. But if we take the four months ended April 30th, then we exported goods worth £2041 thousands in 1933 compared with £1902 thousands in 1932. It is probable that the increase on a quantity or weight basis was still greater. In heavy plant or "Electrical Machinery" there was a falling off both for April and for the four months ended April 30th, mainly due to the Continent of Europe, Canada, and India taking less. Nevertheless, South Africa and New Zealand accepted more of this class during the first four months of this year as compared with the first four months of 1932. The Board of Trade figures are certainly not depressing on the whole.

Where monthly or four-weekly statistics are prepared, their effectiveness greatly depends upon how quickly they can be placed before the management after conclusion of the selected period. The sooner they are available the more easy it is for them to draw conclusions, the more readily can questions be asked and answered, and reasons for abnormalities obtained. Tendencies and changes can be seen, leaks stopped, policies reconsidered, and true management follow. What the management requires is living, pertinent facts, not extinct or dying ones.

The usual basis of such comparisons are (1) with the period immediately preceding, or (2) with the corresponding period of the previous year.

An auxiliary statement of great utility is that showing the accumulated figures to the end of each period, or comparison with the similar period of the preceding year or years. An example of such a statement will be found set out on page 85. Such a procedure enables the trend of the data to be clearly seen and the progress or otherwise of the business judged.

(c) Short Period Results

Statistics for both long and short periods suffer some disadvantages. The longer the period covered the more

likely is the effect of variations to be obscured or diminished, though it cannot, of course, conceal them. As against this the normal conditions have an opportunity of coming into play and adjust the position. With the shorter periods of time, even greater caution must be used when making comparisons or drawing conclusions, for short-term observations are affected to a marked degree by any abnormal factor which may occur. Thus, supposing there had been very inclement weather in one year which resulted in a very heavy fall in sales, then, unless a note of this happening had been inserted, one might conclude that the figures of the corresponding week in the next year were extremely good, whereas if they had been compared with the average results of similar weeks in a number of preceding years, it would be found that they were below the average. Where the commodity is one for which there is a constant demand, the fall in one week would probably be offset in subsequent weeks and not be revealed in a monthly or four-weekly statement, for in the longer period the law of compensation has an opportunity to come into play.

5. METHODS OF COMPARISON

Comparative statements are the essence of periodic returns, but when large masses of figures are being handled, comparison item by item is either impossible or would take too large an expenditure of time and money, and hence it becomes necessary to consider in what ways this work of comparison can be simplified.

(*a*) Approximation

Considerable saving can be effected by *approximation*, e.g. dealing only with figures correct to some agreed standard, viz. taking £917 15s. 11d. as £918, or by taking figures correct to say the nearest thousand in which case the number 295,897 would be taken as 296,000. This

process results in differences being present in the totals, but while some of the numbers will be greater than the actual, others will be less and they will tend to compensate one another, and so minimize the differences in the aggregate. If the actual differences are expressed as a ratio of the approximated figures, we can at once assess the influence which such a difference has. Thus, if we approximate the number 99,999 to 100,000, we get a difference of 1, and this would also be the difference if the number 99 was stated as being 100, but in the first case the *error* (the statistician's term for this difference) present is only 1 in 100,000, whereas in the second case it is 1 in 100, a very marked difference.

The following table will demonstrate how approximation affects the position—

	Actual Figures			Figures Approximated to Nearest £	Difference	
	£	s.	d.	£	s.	d.
	10,918	16	11	10,919	+ 3	1
	5,414	9	11	5,414	− 9	11
	14,628	14	0	14,629	+ 6	0
	2,129	13	6	2,130	+ 6	6
	15,493	2	1	15,493	− 2	1
	16,201	5	7	16,201	− 5	7
Total .	£64,786	2	0	£64,786	− 2	0

Thus the error in the estimated total is 2s. or ·00015 per cent of the actual total, a difference which would have no tangible effect if the approximated figures are used as the basis for further investigation and calculation. Even though the actual difference in the total might appear to be considerable, yet it will usually be found that it is very small in relation to the aggregate. In recent times, some large companies have tentatively presented their Balance Sheets with figures approximated in this way, and all tables prepared by financial journals omit shillings and pence, and often give figures which are only correct to the nearest £1000.

The degree to which approximation will be carried must depend upon the nature of the data under review and the problem to be solved. Thus in estimating the quantity of coal in a dump at an electricity works an error of even one hundred tons in a total of some tens of thousands would affect the ultimate result but little, whereas in estimating the stock of a poisonous substance in a chemist's shop an error of an ounce would be a very serious matter.

(*b*) Averages and Types

Even when approximation has been used we often find that the work of comparison is a vast one, and still further to reduce the work we take representative items from the groups and compare these. If the items are properly chosen, such comparisons will yield the same broad results which would have been given if a comparison of the individual items had been made. We may obtain these representative items in one of two ways, viz. either by calculation or by selection. The first method gives us averages, and while it may be said that they are in such constant use that they are well understood by everyone, yet there are certain points about them, and rules regarding their preparation which, if not observed, will lead to wrong impressions and false conclusions. An average has been defined as "an attempt to give in a single impression something definite and concise about a whole group." Having obtained an average for each of two or more large groups of similar data they can be compared one with the other. If we know the average and the number of examples from which it has been calculated we can obtain the aggregate without knowing the actual size of any one item. If we are given the total and the number of items, we are able to calculate the average without knowing the magnitude of any item. The average is easy of calculation, takes all examples into account, giving each its proper influence, and is

easily understood by everyone. On the other hand the result is often one which is not an actual example from the data from which it is calculated, and extremes in one direction which are not offset by corresponding ones at the other end of the array affect the result materially and may make it unrepresentative of the main body of data, and thus be undesirable as the basis of comparison. This is seen clearly in the following example—

Assume that the incomes of ten men are as follows—

£250, £300, £350, £250, £400, £500, £700, £400, £306, and £10,000.

The average would be—

$$\frac{250+300+350+250+400+500+700+400+306+10{,}000}{10}$$

$$=\frac{13456}{10}=£1345{\cdot}6 \text{ or } £1345 \text{ 12s. 0d.}$$[1]

This average does not coincide with the actual income of any individual, and, moreover, is greatly influenced by the size of the income of the tenth man. Such a result is not at all representative of the data under review, and would mislead any inquirer investigating the financial position of the group.

To obtain the correct average of any set of data, it is essential that we know details of all the items present.

The term "average" may mean—

(1) a fixed arithmetic quantity expressing the exact truth about the whole of the group;

(2) the mid-point between the extremes in the data; or

(3) an expression used as an indication of the kind of thing most frequently met with.

[1] In all kinds of statistical work it is customary to express fractional results in decimal form. Comparison is thus facilitated, and the procedure can be applied to all factors in which results are required or obtained.

It is only in the first of these cases that the result can be used as the basis of further calculation if so required. For example, if we find that the pay-roll of a factory is as follows—

300	men	are	paid	£4	each	per	week
200	,,	,,	,,	£5	,,	,,	,,
100	,,	,,	,,	£6	,,	,,	,,

the average will be $\dfrac{(£4 \times 300) + (£5 \times 200) + (£6 \times 100)}{300 + 200 + 100}$

$$= \frac{2800}{600} = £4\ 13s.\ 4d.$$

Though no man actually receives such a sum, yet when this average is multiplied by the number of workers the result is the actual amount of the wages which will be paid to them.

In the second case given above we might say that the average wages were £5—the mid-point—but when this is multiplied by the number of men the result does not coincide with the amount which the cashier will need to pay the men the sums due to them. The third case occurs when the term "average" is applied to items not obtained by calculation but by selection. Thus we hear of the "average man" by which is meant the normal man, one normal in height, girth, intelligence, ability, etc., or in other factors which cannot be measured numerically. Since we are unable to calculate an average from such examples, the term, though understood by everyone, is not a mathematically correct one.

It is a mistake to assume that the average is the result which is generally found. There is the well-known case of the cricketer whose batting average was found to be 50, but whose *actual* scores varied from 2 to 100 runs per innings. Here the average is an arithmetic fact, but not an actual result, and it would therefore not be wise to wager that such a batsman on going to the wicket would be more likely to make 50 runs than any other number. Similarly a business

might show average monthly sales of £20,000. If we compare this average with the result of, say, the month of April when the sales amounted to £14,000, we might assume that business in April had been anything but good, and while this might be true it might also be very misleading. If sales throughout the year were very steady then April is well below the average as can easily be seen from the following table showing the sales of each month—

	£	
January	21,000	
February	20,000	
March	20,500	
April	14,000	
May	20,750	
June	21,000	
July	21,000	
August	20,000	
September	20,250	
October	20,800	
November	20,500	
December	20,200	
Total	£240,000	Average £20,000

Thus, with the exception of the month of April, the average result is very near to the actual monthly figures.

If, however, the trade was of a seasonal nature and it is in the last six months of the year that the bulk of the business is done, the conclusion might be wrong. Let us consider the following sequence of sales—

	£	
January	12,000	
February	11,500	
March	12,000	
April	14,000	
May	11,500	
June	11,000	
July	22,000	
August	25,000	
September	32,000	
October	27,500	
November	31,750	
December	29,750	
Total	£240,000	Average £20,000

In this case the average is not truly representative, and comparison of the monthly results with the average for the year is of little or no use in gauging whether the business is doing well or badly. If we take the average monthly sales for the first six months of the year we get £12,000, and in comparison with such an average the results of April prove to be well above the ordinary expectations, while the October sales which appear to be well above the yearly average are actually below the average sales per month made in the second half of the year, the figure being £28,000.

The period covered by the average therefore may affect the average materially and alter our conclusions, consequently we must be very careful to take periods showing similar results if true comparison is to be made.

It is always advisable to supplement the average statement with the actual figures from which it is calculated, as, by so doing, the chances of the reader drawing wrong conclusions are greatly reduced. This procedure is necessary also in order that the *sequence* of the data from which the computation has been made can be observed. The sequence is of very great importance as is clearly illustrated in the following example—

The average annual profits of two companies over five successive years are £20,000, from which it would appear that the results were equal, but an inspection of the results from which the average is calculated is as follows—

Year	Company A	Company B
	£	£
1 . . .	10,000	30,500
2 . . .	15,000	25,000
3 . . .	19,500	19,500
4 . . .	25,000	15,000
5 . . .	30,500	10,000
Total .	£100,000	£100,000
Average .	£20,000	£20,000

It will be apparent from a brief study of this statement that the profits of Company A are steadily increasing and in the last two years have greatly exceeded the average, but in the case of the B Company the profits are declining, and the last three years' results are well below the average. It was this serious disadvantage from which the average suffers which in the past was seized upon by astute company promoters who gave only the average profits earned when issuing the prospectus, and led to the provision contained in Part II of the Fourth Schedule of the Companies Act, 1929, requiring an Auditor's Certificate of the actual profits made for at least the last three years to be set out in any invitation to the public to subscribe for shares.

It must also be borne in mind that *simple* averages may give wrong results when used in calculations in such cases where the data fall into classes, and such classes do not contain the same number of examples. Suppose a factory employs 1200 men in all, and their wages are as follows, viz. 500 are paid £3 per week each, 400 receive £4 each, and 300 are paid at the rate of £5 per week. The average wages is not $\frac{£3 + £4 + £5}{3}$ or £4 as might be thought, as this amount when multiplied by 1200 gives a total wage bill of £4800 per week, whereas the actual sum needed to pay them would be $(£3 \times 500) + (£4 \times 400) + (£5 \times 300)$ or £4600. The average which must be used is known as the "weighted average" and is obtained by multiplying each rate by the number of men receiving it, and obtaining an aggregate of the results and then dividing such aggregate by the total number of men employed, viz.—

$$\frac{(£3 \times 500) + (£4 \times 400) + (£5 \times 300)}{500 + 400 + 300} = \frac{4600}{1200}$$

or £3 16s. 8d. An illustration of this principle has already been seen on page 49. Business men recognize this weighted

average and use it to obtain the average cost per unit of a commodity when purchases have been made at different prices, in order to see at what price a sale can be made to make a profit. For example 1000 units are bought at 20s. per unit, and before any are sold the price falls to 12s. 6d., at which price a further 4000 are purchased. The average cost per unit is now $\frac{(20s. \times 1000) + (12s.\ 6d. \times 4000)}{1000 + 4000}$ or 14s. per article. Any sale which can be made at a price in excess of 14s. will therefore show a profit, even though the price at which the original purchases were made is never reached. This process of averaging is often applied to Stock Exchange dealings, but it must be remembered that much larger quantities must be bought as the price recedes if the average cost is to fall appreciably.

The average results of a series of periods is often taken as a standard which is used for comparison with current results, but, as time passes, changes in general conditions may occur and this base standard become unrepresentative through being out of date. To overcome this difficulty, and to ensure that the standard has taken into account the effects of all changes, it is customary for the base used to consist of the average of a certain number of periods, but with the conclusion of each successive period the results of such period are taken into account and the earliest period eliminated. The tables on page 54 will show the difference, and are constructed from the following profits—

Year	Profits	Year	Profits
	£		£
1 . .	2000	6 . .	8000
2 . .	2500	7 . .	5000
3 . .	3000	8 . .	7000
4 . .	3500	9 . .	8000
5 . .	4000	10 . .	7000

The first table is based on the assumption that the results of the first four years are a satisfactory base, while the second uses the four-year "moving average."

TABLE I

COMPARISON OF THE PROFITS OF THE LAST SIX SUCCESSIVE YEARS WITH THE AVERAGE OF THE YEARS 1–4

Average Profits for Years 1–4 = £2750

Year	Profits	Percentage of Profits to Base
	£	
5	4000	145·45
6	8000	290·90
7	5000	181·81
8	7000	254·54
9	8000	290·90
10	7000	254·54

Conditions in the latter years must be very different to enable such large additional profits to be made, and hence the percentages are biased in that the effect of such changed conditions has not been taken into account in the base with which the comparisons have been made.

If we now take the FOUR-YEAR MOVING AVERAGE as the base for the calculations of the percentage change, we get the following result—

TABLE II

Year	Base	Profits	Percentage of Profits to Base
		£	
5	Years 1–4 £2750	4000	145·45
6	Years 2–5 £3250	8000	246·15
7	Years 3–6 £4625	5000	108·11
8	Years 4–7 £5125	7000	136·58
9	Years 5–8 £6000	8000	133·33
10	Years 6–9 £7000	7000	100·00

Except for the sixth year, which was clearly an abnormal one, the percentages show material increases when the first method is used, but in the second case the degrees of increase are much lower and quite different. The latter are therefore likely to be a more correct interpretation of the increase in the business which is taking place. It will also be observed that the moving average shows a steady increase in spite of the actual fluctuations in the profits which have taken place, though we shall find that the average of the years 7 to 10 will show a slight fall as this average amounts to £6750. The moving average is known by statisticians as the TREND, and is a fair indication of the tendency of the data.

We have already seen that the average may give a result which is not representative of the data, i.e. it is an arithmetic reality, but not an actual one. In business and commercial data we usually require a representative item which is likely to recur. Thus, if a large number of machines are engaged on repetition work, and a few show very high or extremely low outputs, the average will be affected thereby, but the management is more interested in the *normal output* of the machines, and such normal or MODAL results will be taken as more representative of the true position. The Mode or Norm is the size of the instances most frequently found. The extremes or abnormal items are not taken into account and in fact can be totally ignored. Supposing there are one hundred machines in a factory engaged in producing the same kind of article and sixty of them give the same output, while the other forty show varying results, no two of them producing exactly the same output. We can assume that with the same type of machines working in similar conditions it is 60 to 1 on the modal output being obtained as against any other particular amount, and 60 to 40 on the modal as against any other.

The discovery of the mode is most useful in estimating future results as it takes no extremes into account and hence

no time need be spent in measuring, counting, or examining them, while as the mode is the item which predominates, an examination of its characteristics will give all the information needed and the remainder of the data can be dispensed with. On the other hand it may be difficult to determine the mode, or there may apparently be several, and even when it has been located it cannot be used for any mathematical computation (e.g. obtaining the total) as can be done when an average is used.

When data are of a nature which makes numerical measurement impossible, or in cases where exact measurements cannot be ascertained, e.g. when studying such factors as ability, quality, etc., statisticians use another type known as the Median. This is the middle item of the data when it is arranged in order of magnitude (this arrangement is technically called an "array"). This type is not often used in business and hence need not be further discussed here.[1]

(*c*) **Auxiliary Methods of Comparison**

It is often desired to make comparisons between data which, while apparently homogeneous, are affected by certain influences, factors, or conditions which may alter the results. Thus the output of a factory in two successive periods would apparently be comparable, but if in one of the periods the number of hours worked, or the number of workers employed varied from those of the other, comparison of output is useless. Similarly the output of two factories for the same period of time can only be compared if methods of production and conditions of working are the same and the number of workers and the hours worked are identical. While comparison is never possible where the methods or conditions differ, yet, if a common unit which eliminates differences in the number of men employed or

[1] Both the Mode and Median are fully discussed in the Author's book, *Statistics and Their Application to Commerce.*

hours worked can be obtained, comparison becomes possible. Such a unit would be the *output per man-hour*. This is obtained by dividing the output over the period by the total number of hours worked. Assume that we desire to compare the results of three factories from the following information relating to the same period of time—

	Factory		
	A	B	C
Output for year in units of production	499,200	538,965	1,786,400
Number of men employed . .	160	180	400
Number of hours worked per day .	6·5	7·25	7
Number of days worked . . .	300	295	290

The results can be tabulated as follows—

(*a*) Factory	(*b*) No. of Men Employed	(*c*) Hours Worked per Day	(*d*) No. of Working Days in Year	(*e*) Man-hours Worked in Year (*b*) × (*c*) × (*d*)	(*f*) Output for Year	(*g*) Output per Man-hour (*f*) ÷ (*e*)
C	400	7·0	290	812,000	1,786,400	2·2 units
A	160	6·5	300	312,000	499,200	1·6 ,,
B	180	7·25	295	384,975	538,965	1·4 ,,

It will thus be seen that Factory C is easily the best producer, and, all other things being equal, should produce at a lower cost per unit than either of the others.

Other composite units can be constructed such as ton-miles for haulage; passenger-miles for railways and motor-coach proprietors, etc., etc.

In many cases where population is an important factor it is customary to show statistics as applied to each member of the community, e.g. consumption of a commodity per head in different areas. Unless this factor be considered, one may be led into advertising in places where the quantities of sales are low, but the consumption *per capita* high,

and peak demand would appear to have been reached, whereas the advertising should be done in areas where, though sales are high in volume, consumption per head is lower; but it must be remembered that comparison would have to be made only with districts where conditions were similar. Other such units can easily be created.

It has already been shown that when a change takes place in some factor or factors, comparison is not possible till the effect of such changes has been eliminated. The following statement shows the components of Profit and Loss for two years, but in the second year the selling price has increased by 20 per cent.

THE X MANUFACTURING COMPANY

COMPARATIVE PROFIT AND LOSS STATEMENTS

	First Year				Second Year			
	£	£	Per Cent		£	£	Per Cent	
Sales		400,000		100		600,000		100
Deduct—								
Cost of Sales:								
Material	100,000		25		150,000		25	
Labour	200,000		50		330,000		55	
Manufacturing Expenses	50,000		12½		60,000		10	
		350,000		87½		540,000		90
Gross Profit		50,000		12½		60,000		10
Deduct Selling Expenses		10,000		2½		15,000		2½
Net Profit on Sales		40,000		10		45,000		7½
Deduct General Expenses		15,000		3¾		15,000		2½
Net Profit		£25,000		6¼		£30,000		5

The results are, of course, affected by the change in prices and from this statement as it stands we cannot say whether the business is doing as well as previously or not. To compare the second year with the first we must reduce the sales of the second to the value which they would have had in the first year, thus—

$$\frac{£600,000}{120} \times 100 = £500,000$$

A supposititious Profit and Loss Statement may now be drawn up, beginning with sales of £500,000 (i.e. volume in second year at prices ruling in first), and replacing the actual figures with the amounts obtained by multiplying £500,000 by the various rates per cent shown in the first year's statement. This statement will show what the figures for the

PROFIT AND LOSS STATEMENT OF SECOND YEAR REDUCED TO FIRST YEAR'S RATES AND COMPARED WITH ACTUAL STATEMENT FOR SECOND YEAR

	Statement on Basis of First Year's Rates to Sales			Variations of Profit			
				Increases		Decreases	
	Rates of First Year Per Cent	Amounts at First Year's Rate	Actual Second Year	Actual	Per Cent	Actual	Per Cent
		£	£	£		£	
Sales	100	500,000	600,000	100,000	20		
Deduct—							
Cost of Goods Sold:							
Materials . . .	25	125,000	150,000			25,000	20
Labour . . .	50	250,000	330,000			80,000	32
Manufacturing Exps. .	12·5	62,500	60,000	2,500	4		
Total. . .	87·5	£437,500	£540,000			£105,000	23·43
Gross Profit . .	12·5	62,500	60,000			2,500	4
Deduct Selling Expenses .	2·5	12,500	15,000			2,500	20
Profit on Sales . .	10·0	50,000	45,000			5,000	10
Deduct General Expenses.	3·75	18,750	15,000	3,750	20		
Net Profit . .	6·25	£31,250	£30,000	£1,250	4		

second year would have been if there had been merely a change in the volume of business, but no change in the rates of the various expenses to sales. A comparison of these supposititious figures with the actual figures of the second year will show the effect on the second year's profits of fluctuations in cost of manufacture and of expenses.

The additional profit of the second year can now be accounted for as follows—

	£	£
12 per cent Gross Profit (first year's rate) on £100,000 additional business done in second year . .		12,500
Deduct—		
Excess of Additional Cost of Manufacture over Increase in Selling Prices:		
Additional Cost of Material	25,000	
Additional Cost of Labour	80,000	
	105,000	
Less Decrease in Manufacturing Expenses .	2,500	
Net Excess of Manufacturing Cost . . .	102,500	
Less Increase in Selling Prices . . .	100,000	
		2,500
Excess of Gross Profit of Second Year over First .		10,000
Deduct Additional Selling Expenses Second Year		5,000
Additional Profit Second Year . .		£5,000

(*d*) Index Numbers

It frequently becomes necessary to compare movements in dissimilar things such as quantities and price, the variation in the prices of two or more commodities, the basic values of which show a great difference, or of summarizing the total output of a business producing a large number of different commodities, the units of measurement of which vary very greatly, e.g. some measured in tons, others in lb., while some are taken by length. To make comparison possible we use Index Numbers. These numbers are largely used in considering price-levels, wage changes, unemployment figures, etc. To construct an index number we must use a base which must be normal. This is usually the average of a number of periods. Suppose that we desire to measure changes in the prices of two commodities to see whether there is some common influence affecting them. The unit of measurement of Commodity A is, say, a ton, while that of

Commodity B is a lb., and the following tables show the average prices of each for a number of successive periods—

Period	Commodity A Price per ton	Commodity B Price per lb.
	£	s. d.
1	20	12 6
2	22·5	14 0
3	25	15 6
4	30	19 0
5	27·5	14 0
6	30	18 0
7	31	18 6
8	30	17 6
9	33	20 0
10	35	22 6

While it is obvious from this that the prices of the two commodities have moved in the same direction, yet the *degree* of movement cannot be seen. If we take the average price of each commodity for the first five years of our calculations and then express the price of each subsequent period as a percentage of this base, the degree of movement in each will be shown. This is shown in the following table—

Period	Commodity A		Commodity B	
	Price per ton	Index No.	Price per lb.	Index No.
	£		s. d.	
1	20		12 6	
2	22·5		14 0	
3	25		15 6	
4	30		19 0	
5	27·5		14 0	
Total	£125		75 0	
Average	£ 25	100	15 0	100
6	30	120	18 0	120
7	31	124	18 6	123·3
8	30	120	17 6	116·6
9	33	132	20 0	133·3
10	35	140	22 6	150

From this statement we can see at once that the fluctuations are of a similar nature, but the movements are more marked in B than in A. While it is apparent that there is some common factor influencing the price of the two commodities yet there is some other factor which affects Commodity B. This might be a change in the quantity of the commodity available.

The same principle can be applied to dissimilar things, such as quantities and prices, so that we may study what effect increasing or decreasing output would have on the price obtainable, thus enabling comparison between factors of an entirely dissimilar nature.

Another use of this method is to compare total output of a works when different commodities are produced and these in varying quantities. There must first be established a relationship between the commodities, viz. the number of each which from the point of view of materials, cost, or time taken in manufacture are the same. Assume a factory produces four articles A, B, C, and D, and it is found that 1 unit of A is equal to $\frac{1}{10}$ of a unit of B, $\frac{1}{20}$ of that of C, and $\frac{1}{30}$ of D. In a given year there are produced 1000 units of A, 5000 units of B, 10,000 of C, and 20,000 of D, and this output is considered a normal one; then the total production in common units of output is—

1,000 A	1,000
5,000 B × 10	50,000
10,000 C × 20	200,000
20,000 D × 30	600,000
Total common units	851,000

In a subsequent year the production is 500 units of A, 4000 of B, 20,000 of C, and 25,000 of D. The total output is—

500 A	500
4,000 B × 10	40,000
20,000 C × 20	400,000
25,000 D × 30	750,000
	1,190,500

If the former year is taken as the base then total production has increased to 139·89, i.e. $\left(\frac{1,190,500}{851,000} \times 100\right)$ an increase of 39·89 per cent over the base year.

This index number method of computation is greatly used in many different ways, and these will be found set out in the companion volume entitled, *Statistics and Their Application to Commerce.*

CHAPTER IV

TRADING AND REVENUE STATEMENTS

1. FORMS OF SUCH STATEMENTS

Trading and Revenue Statements vary, as already mentioned, with the class of business or undertaking, but the general principles are the same. The income or revenue of a trading undertaking is mainly obtained from the sale of its products, the charges for the service rendered, or the receipts from property owned, and this may be termed the "primary income." Many concerns also have a secondary form of income, which is not obtained from the principal operations, but arises from other sources, such as interest on loans made, rents of property owned but not used for the purposes of the business, etc.

Against the income, whether primary or secondary (though as shown later they should be recorded separately), must be set the cost of producing the goods, of rendering the service, the expenses of selling and distributing the goods, and the general expenses incidental to the management and conduct of the business. Without accurate figures for costs, many business statistics will be of but limited use, but comparisons of such costs over successive periods and between various products should help to ensure the business is properly controlled.

The statements as to Income, etc., of a manufacturing concern should consist of—

(*a*) PRODUCTION or MANUFACTURING ACCOUNT designed to show the actual cost of the goods produced or made, irrespective as to whether they have been sold or not;

(*b*) TRADING ACCOUNT which will give the Gross Profit made on the goods actually sold; and

(*c*) PROFIT AND LOSS ACCOUNT showing the Gross Profit from (*b*) together with any income of a secondary nature, and the selling and distributing, management and administration expenses chargeable, the resulting balance being either the net profit or actual loss made for the period under review.

A trading undertaking which purchases articles and does not manufacture them will only prepare the last two accounts. An undertaking selling service, e.g. a railway or omnibus company, produces similar accounts, but calls them REVENUE and NET REVENUE ACCOUNTS, and these terms are also applied to the statements of public utility organizations, such as those supplying electricity, gas, and water. Concerns which render service without desiring to make profits, e.g. hospitals and other charitable institutions, prepare INCOME and EXPENDITURE ACCOUNTS, though occasionally we only see a RECEIPTS AND PAYMENTS ACCOUNT.

It matters not what these Statements are called; the principle involved in their construction and composition is exactly the same, i.e. to bring into account all income received or receivable, however earned, and set against it every expense entailed in the earning of such income, or in the administration of the business. Trading businesses find that it is always advantageous to show both gross and net profits, but not all manufacturers think it necessary to prepare Manufacturing Accounts.

2. ACCOUNTS OF A MANUFACTURER

The following shows a statement in conventional form of the income and outgoings of a manufacturing business—

MANUFACTURING ACCOUNT

Dr. FOR THE YEAR ENDED 31ST DECEMBER, 1937 *Cr.*

		£		£
To Work in Progress, 1st Jan.		20,000	By Work in Progress, 31st Dec.	15,500
,, Cost of Raw Materials used—	£		,, Sale of By-products	2,000
Stock, 1st Jan.	10,000		,, COST OF FINISHED GOODS	112,500
Add Purchases	50,000			
	60,000			
Less Stock, 31st Dec.	12,000	48,000		
,, Factory Wages		40,000		
,, Power		10,000		
,, Factory Expenses		12,000		
		£130,000		£130,000

TRADING ACCOUNT

Dr. FOR YEAR ENDED 31ST DECEMBER, 1937 *Cr.*

	£		£	£
To STOCK OF FINISHED Goods, 1st Jan.	22,500	By Cash Sales	50,000	
,, Cost of Goods produced	112,500	,, Credit Sales	130,000	180,000
,, Balance, being GROSS PROFIT	60,000	,, Stock of Finished Goods, 31st Dec.		15,000
	£195,000			£195,000

PROFIT AND LOSS ACCOUNT

Dr. FOR YEAR ENDED 31ST DECEMBER, 1937 *Cr.*

		£		£
To Management Salaries		11,000	By Gross Profit	60,000
,, Wages		1,300	,, Income from Investments	250
,, Rates		2,300	,, Rents	300
,, Lighting and Heating		750	,, Transfer Fees	50
,, Insurance		350		
,, Postage, Telephones, etc.		600		
,, General Office Expenses		400		
,, Office Cleaning		200		
,, Carriage		1,800		
,, Advertising		4,000		
,, Travellers' Salaries		2,300		
,, Commissions		1,700		
,, Travelling Expenses		1,200		
,, Cost of Printing Catalogues	£ 1,250			
Less Stock 31st Dec.	250			
		1,000		
,, Petrol, Oil, Running Repairs, and Garage Expenses		1,500		
,, Legal Expenses		100		
,, Audit Fees		210		
,, Bad Debts		1,700		
,, Discounts		350		
,, Directors' Fees		3,000		
,, Depreciation		3,550		
,, Net Profit		21,290		
		£60,600		£60,600

3. LIMITATIONS OF USUAL FORM OF ACCOUNTS

While the general lay-out of the accounts follows the usual form adopted by accountants, and the various items are correctly described, yet supplementary statements may show points where adjustments will have to be made. Thus we may find that the item of Management Salaries includes the salary of £2000 paid to the works manager whose duties are solely in connection with the production side, while the item "Lighting and Heating" refers to the whole of the premises, and £550 is really applicable to the factory.

Similarly £1950 of the rates is in respect of the factory, the balance being in respect of the office, garage, etc., while £200 was the cost of the factory insurance. The "Carriage" item when dissected shows that £750 was for carriage of raw material, the balance being in respect of deliveries of goods to buyers. "Depreciation" covers the reduction in the value of the plant to the extent of £2000, while lorries were depreciated by £1500 and furniture by £50 Investigation of the "Discounts" shows that we allowed debtors £1050, and were allowed £700 by our creditors.

When we remember that the selling price is usually fixed by adding a percentage of the cost to the cost price, and out of such percentage additions, or mark-up, the general expenses of selling, distribution, and management have to be paid and profit taken, it becomes apparent that a correct ascertainment of cost is essential. From the gross profit disclosed it would appear that the business under review adds 50 per cent on to its apparent cost to get the sale price. The apparent cost, however, is not the correct cost, as certain manufacturing expenses have not been treated as such, but regarded as part of the general expenses.

The accounts as drawn do not show the relationship between the salient factors. An efficient management desires to know whether the proportions of cost are correct, as experience shows that the cost of labour forms a certain definite proportion of the cost of raw material. This ratio should only change when (*a*) there is a rise or fall in the price of raw materials; or (*b*) an alteration in the rate of wages has taken place. The statement given above does not disclose this information. In some businesses the process of manufacture may require various kinds of raw material, and there should be definite proportions of each; thus a blast furnace needs coal, iron-ore, and limestone, but these may all be included in the composite item of purchases. Similarly the selling expenses must bear some

relationship to the sales. Let us assume in the case under review that two different kinds of raw material are used, viz. A and B, and that the items of Stocks and Purchases are found to be as follows—

	Commodity A	Commodity B
	£	£
Stock 1st Jan.	6,000	4,000
Purchases	30,000	20,000
Stock 31st Dec.	7,200	4,800

4. SUGGESTED FORM OF MANAGEMENT STATEMENTS

We may now redraft the information in the form of a statement designed to enable the ratios to be obtained without difficulty, and this amended statement appears as shown in Appendix B.

From this we can see immediately the cost of each kind of raw materials used and the cost ratio between them is as 3 of A to every 2 of B. If this be the normal proportion, and past experience will tell us whether this is so, then there is no need for any further inquiries, but any divergence in the proportion from the standard which normal production shows to be usual would be inquired into. If the price of one of the commodities changes without the cost of the other altering to a like degree, then the ratios of cost will obviously alter, but such changes should be noted and their influences calculated. It must be remembered, however, that the *quantities* used should not change whatever may be the conditions as to price, and therefore a supplementary statement showing quantities actually used should be prepared for reference. Any change in prices will then

automatically come to light. If it be found that the proportion of quantities changes, then inquiry must be made to ascertain the reason, which may be that inefficient workers have been wasting material, or a change in the quality of the finished article which may result in a variation of the materials one to the other and make its cost more or less, resulting in less profit or complaints as to the quality.

5. COSTS

The relationship of the labour costs to the prime cost (i.e. the actual cost of material and labour) of completed work is also disclosed, e.g. wages cost £40,000 of the prime cost of £92,500, or 43·24 per cent. The "Work in Progress" at the beginning and end of the period must be taken into account as both material and labour will be used in completing work which is in a partly finished state on 1st January, and in work not in a finished state on 31st December.

While the method of valuing this item varies with the nature of different businesses, it will be found that the valuation is often made on the basis of the actual cost of material used and labour applied, though occasionally a percentage addition is added to cover some of the general factory expenses (e.g. Factory Oncost) on the ground that these must be spread over all the work done, but unless there are very material differences between the figures for the beginning and end of the year there is little need for such additions and in any case it is advisable for the value to be on a conservative basis. In cases where the time of construction is a lengthy one, such as occurs in the building of a harbour, railway, or a large steamship, some addition to the actual expenditure incurred is justifiable in order that the constructing firm can take credit for some small proportion of the anticipated profit.

6. FIXED AND VARIABLE EXPENSES

All expenses directly chargeable to the factory are costs of production and should be included under the heading of Factory Expenses. The original statement did not take into account all these expenses, as some of the items had not been dissected into their component parts. The salaries of any officials whose whole time is devoted to the management of the factory must be included here. These factory expenses fall into two groups, viz. (*a*) those which will vary with the output, such as power and carriage on raw material; and (*b*) those which are constant, e.g. rent, works manager's salary, etc. The first group should be expressed as ratios of the "Prime Cost of Finished Goods," and such ratio should remain constant in the absence of any change in the costs of such items as are included, e.g. an increase in the rate for power. The second group will bear no definite relationship at all to the costs, as no matter what the output may be the items are fixed, and thus the greater the quantities produced the lower their unit cost. The following simple statement will illustrate this point if we assume that a factory is equipped to produce 100,000 units of goods in a given period, and that in two successive periods we get an output of 50,000 and 100,000 units respectively with the following expenditure—

	Period 1		Period 2	
	Output 50,000 *Units*		*Output* 100,000 *Units*	
	Actual Cost	Cost per Unit	Actual Cost	Cost per Unit
	£	£	£	£
Cost of Raw Material Used .	20,000	·4	40,000	·4
Cost of Labour . . .	20,000	·4	40,000	·4
Variable Charges . . .	2,000	·04	4,000	·04
Fixed Charges . . .	8,000	·16	8,000	·08
Factory Cost . . .	£50,000	1	£92,000	·92 or 18/4⅘

The proceeds of sales from by-products should be set against the cost of manufacturing and not treated as income. In many cases the sale of these by-products will result in a material saving of cost. In a brewery, for example, the spent malt, hops, and yeast are all sold, thus reducing the cost of the materials. In the Ford Works at Dagenham, by-products are utilized to reduce costs wherever possible. Thus the waste gases from the coking plant are used to fire the furnaces to raise steam for the generation of electricity, etc.

We see from the amended statement that the actual cost of goods produced is £120,000 and not £112,500 as shown originally, so that if the percentage added to get the selling price is 50, the goods produced should sell for £180,000. This last figure is the actual amount of the sales, but there is a difference which is clearly seen in the proportion of actual gross profit (£52,500) to sales (£180,000) which is 29·16 per cent and not 33·33 per cent. This is due to the fact that the stock of finished goods at the end of the period is smaller than that at the beginning, and it therefore follows that more goods are sold than have been actually produced, and it is the *cost of goods sold* which should be compared with the sales, and not the cost of the goods produced.

7. SELLING, DISTRIBUTING, AND GENERAL EXPENSES

The conventional form of statement shows the expenses of the business other than those directly attributable to production, but, when these expenses are classified, not only is comparison simplified, but information of great value to the management can be obtained. Thus the cost of selling goods is important, while the expenses of delivering goods to the buyers needs very careful scrutiny. In both these cases we usually have items which vary more or less directly

with the sales. Where travellers are employed to sell the goods, their salaries will remain constant, but any commission paid will, of course, fluctuate with the sales. Advertising may or may not show changes in proportion to the turnover. If the object of the advertising is to keep the name of the commodity in the public mind, it will be a steady figure, but, if an advertising campaign is instituted to increase sales, then a marked increase in this item should be reflected in a higher figure for turnover, even though the full benefit of such advertising is not obtained within the period under review.

In the case of distributing expenses much will depend upon the area from which any increase in sales is derived. If such area is within the district covered by the transport organization of the business there should be but a small increase in the transport charges due to the additional mileage covered, but if the orders come from other parts of the country the item of carriage should show a material increase.

Most of the items occurring under the heading of "Management and General Administration Expenses" are fixed or will show but little fluctuation. "Bad Debts" will naturally tend to increase with additional business, while "Postages, etc." will alter slightly, but it is only when the business increases to a very material extent that any increase of staff occurs, and hence the item of "Salaries" shows any marked change. "Discounts Allowed" may alter, but this depends upon whether debtors are in the position to pay promptly and take these, and hence a fall in the proportion of this item to Credit Sales usually indicates the probability of "slow" accounts. A large increase in the proportion, on the other hand, may be the result of excessive rates of discount being offered and consequently the business is paying too dearly for the advantages obtained from early collections. "Discounts Received" will in turn vary with the cash position which in turn rests upon how quickly

money is received. If the ratio which Discounts Received bears to Purchases falls, it may be found that the Accounts Department are negligent in making prompt payment, or that the financial position is not sufficiently strong to take advantage of the discounts offered. The point to be borne in mind is that the fixed expenses will have to be paid even when little or no business is being done, while the variable expenses will rise only when goods are being produced or bought.

The chart on page 75 shows the relationship between fixed and variable expenses.

It will be noticed that when the plant is shut down and no productive labour is employed, the fixed expenses amount to £10,000. When a normal number of hours are being worked, say, 35,000, the sum of fixed and variable expenses amounts to £40,000. The oblique line which runs to the "Normal Point" shows the relationship between expenses and labour-hours at different values of production.

Production below the Normal Point results in higher expenses per labour-hour but if production takes place above normal it is accompanied by lower expenses per hour. Thus at the Normal Point 35,000 hours of "Productive" labour cost £40,000, or £1·143 per hour approximately. When only 20,000 hours were worked the cost was £27,000 or £1·35 per hour, whereas £41,000 hours cost £45,000, or only £1·098 per hour approximately. This is another form of the statement on page 71.

8. COMPARATIVE STATEMENTS

Informative though the suggested statement in the Appendix may be, yet its use will be greatly increased if the percentages or ratios of the items to one another are also shown, while if we can also add the standard figures obtained from past experience, easy comparison is facilitated

and the progress or otherwise of the business gauged. Such standard percentage or ratio would vary with the nature of the business, but would generally be calculated from the

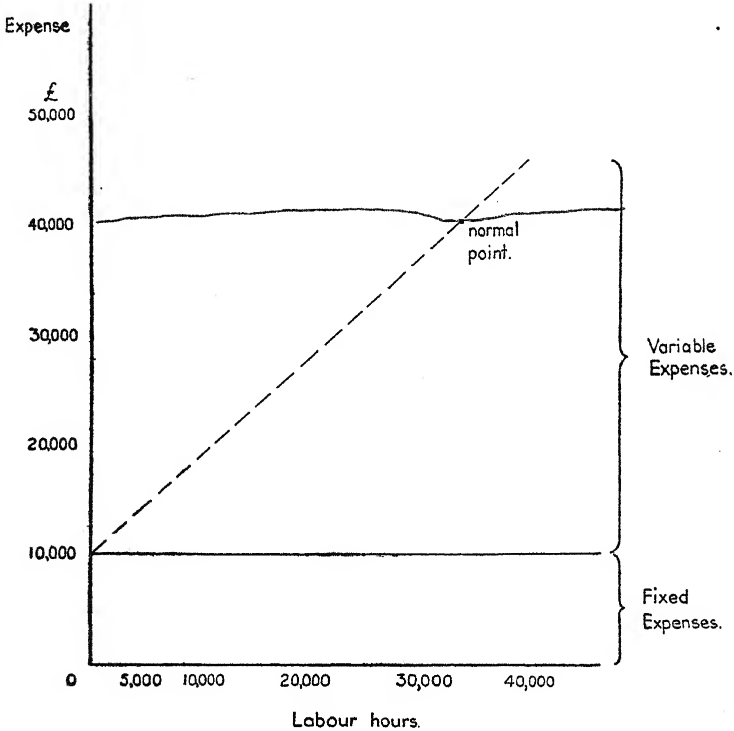

FIG. I. CHART SHOWING RELATIONSHIP OF FIXED AND VARIABLE EXPENSES

moving average. The statement is already a long one, with several columns, and, as the percentage base must necessarily alter, it would be better to prepare supplementary statements giving in very brief form the necessary information.

The following gives a form of such supplementary statement—

COMPARATIVE STATEMENT NO. 1 (PRODUCTION FIGURES)

	Actual	Standard
1. Quantities Completed	250,000 units	240,000 units
2. Percentage of Cost of Material "A" to Total Cost of Material . . .	60%	60%
3. Percentage of Cost of Material "B" to Total Cost of Material . . .	40%	40%
4. Percentage of Labour Cost to Material Cost	83·33%	80%
5. Percentage of Total Cost of Material to Prime Cost of Work done. . .	54·54%	55%
6. Percentage of Labour Cost to Prime Cost of Work done	45·45%	45%
7. Percentage of Prime Cost of Completed Work to Total Factory Cost of Goods produced	77·083%	78%
8. Percentage of Variable Factory Expenses to Total Factory Cost of Goods produced	8·958%	9%
9. Percentage of Fixed Factory Expenses to Total Factory Cost of Goods . .	15·625%	16%
10. Percentage of By-product Sales to Total Cost of Material	4·17%	5%

This statement condenses the figures to a form easily understood even by a person with no real knowledge of figures. The material costs are normal, but labour costs show an ominous increase, the cause for which will at once be the subject of inquiry—this information being found in items 4 and 6, the one confirming the other. Item 5 shows a slight fall in the proportion of material costs, while items 7 and 8 are both satisfactory and indicate that efficiency is

slightly better. Item 9, as already shown, will be reduced as production increases and the fall shown may be due to the increase in production rather than to an actual fall in the expenses. Even when production is greater the actual figures should be compared with the standard figure as an actual fall in expenditure may also have taken place, such as might occur when a new lease of the buildings has been entered into at a lower rent.

A second statement might take the following form—

COMPARATIVE STATEMENT NO. 2

Percentages of the following items to Sales (£180,000)

	Actual	Standard
Cost of Goods sold . . . . (£127,500)	70·83	66·64
Total Expenses . . . . (£31,810)	17·67	18·00
Net Profit on Trading . . . (£20,690)	11·5	15·33
	100·00	100·00

We can now see to what extent the wrong calculation of cost in the original statement has affected the position, for the percentage of net profit is lower than it should be even though the actual figures show an increase. The system of classification of transactions must therefore be revised.

Additional comparative statements will also be prepared for the detailed items within the groups in order to see whether their proportion is what it should be, but the exact form of such statements will depend upon the nature of the business, though the following are suggestions which will be found to give useful information—

Percentage of Gross Profit to Sales
,, Selling Expenses to Sales
,, Distributing Expenses to Sales

Percentage of Management Expenses to Sales
,, Discounts allowed to Credit Sales
,, Discounts received to Purchases.

Since the rate of mark-up is constant in most businesses it follows that the percentage of gross profit to sales should also remain steady, and this would normally apply even when special sales are held to move stocks prior to stock-taking. Any fluctuations in this proportion need to be the subject of a special inquiry. If, for example, the stock on hand has been wrongly valued, then gross profit will be affected and this is reflected in the percentage figure. A favourable position can be shown by over-valuing stock, and the converse also applies. An increase may also be due to high prices being charged, but while this shows a favourable result for the time being, yet if such prices be higher than those of competitors there is a grave danger of a subsequent decline in the volume of sales, and may result in heavy stocks being accumulated and having to be liquidated cheaply and hence at a considerable loss.

A decrease in this percentage may be due to the fact that the cost of the goods sold has increased faster than the selling price and such is often found in periods of rising prices. This is also likely to occur when proper statements of cost are only prepared at lengthy intervals. It may also be the result of selling prices falling without any change in the cost of production, or that the selling price has fallen faster than the cost. It can also arise when selling prices have fallen, but the goods being sold had been produced or acquired when the price-level was higher.

9. SALES

Let us now turn to a more detailed consideration of the items shown in the statement and consider what they should include. The charges made for all goods sold during

the period will appear under the heading of Sales, whether such sales have been for cash or on credit. By a sale is meant a transaction in which the legal title to the goods is actually transferred to the purchasers, hence goods which have been sent out on "Sale or Return" (i.e. on appro.) or which have been sent to an agent to sell on our behalf (technically known as a "Consignment") must not be included, nor should goods subject to hire-purchase agreements be regarded as sales, though goods sold under the deferred payment system are sales.[1] "Goods on Appro." must be treated as stock and valued at cost or market price, whichever is the lower, and allowance also made for depreciation. Goods on consignment are stock in the hands of agents and will be treated and valued in a similar way, but in this case any expenses of transportation to the agent are part of the cost. In neither case is there any debt due from the person holding such goods and hence no profit has been made. Goods under hire-purchase agreements are regarded as stock in the hands of customers and should be subject to depreciation. The treatment of such transactions and the ascertainment of the profit made varies, and as the subject involves highly technical points, will not be considered further. If the customer is charged for packages or barrels in which the goods are delivered, such sums should not be treated as sales but credited to the Crates or Packages Account. If such are returnable, the stock of such articles in the hands of customers must be valued on a very conservative basis.

The Sales item should always differentiate between cash and credit sales. In the case of credit sales a period of time elapses between the date of sale and the date when payment is made, and during this period expenses are continuing. Credit sales mean that the business needs more working

[1] The accounting procedure in connection with hire-purchase and deferred payment transactions is very fully dealt with in *Hire-purshase Accounts and Finance*, by Aston.

capital to finance it than if all sales are for cash, assuming that the time between the goods being ready for sale and the time of sale is the same in each case. If sales increase and the proportion of cash to credit sales is constant, the relationship of cash to expenses, etc., also remains steady, but if the additional sales are on a credit basis the cash position will soon become acute unless additional capital is introduced.

In recent years a form of finance company has been created to assist traders who have to do business on lengthy credit, or on hire-purchase or deferred payment terms. Such organizations (often called trade promotion companies) pay the vendors the cash price of the articles sold against agreements signed by the buyers, and recoup their expenditure and make their profit from the higher prices charged on the credit transaction. Such finance companies can materially assist businesses desirous of extending their plant and other fixed assets, as they can be paid for out of earnings and thus avoid the necessity for increasing capital. In connection with this problem the term of credit generally allowed has an important bearing, as it is then possible to budget for actual receipts and at the same time see whether debtors are paying promptly or not. Suppose the volume of sales is evenly distributed throughout the period and one month's credit is given, then at any given time the debtors should not exceed the total of two months' sales, e.g. the month's sales then falling due for payment and the sales for the next period which are payable a month later. If therefore the Balance Sheet shows debtors for a larger figure than that ascertained as above, then one of two things is happening, viz. either (*a*) the Collection Department is not functioning efficiently by ensuring payment promptly—thus encouraging debtors to become lax in payment—or (*b*) some debtors are not paying at all, and the risk of bad debts is increasing. It will now be appreciated that the Balance

Sheet and Profit and Loss Statements are complementary one to the other, as information obtained from the one has to be applied to the other.

(a) Trade Discount on Sales

Trade discount is an allowance from the retail price of an article which is allowed to a trade customer, i.e. who is buying with a view to resale. In the case of a wholesale house which does not deal with the consumer direct, but only with retailers, the price charged the buyer is the wholesale price and hence the sales would show only the actual price payable. When, however, the business deals with both retailers and the public, the sales to the latter will be at the full list price, while those to the former will be less the trade discount allowed to them. It is usual, however, for only the net amount of the sales (i.e. the actual amount payable) to be brought into account and in such cases the trade discount is not disclosed in the books at all. Unless the sales show the two classes separately it will be impossible to check the ratio of gross profit to sales at all, as obviously the rate of the gross profit will be quite different in the case of the sales to retailers from those direct to the consumer.

(b) Allowances

If adjustments have to be made through mistakes or omissions in invoicing, the corrections should be made in the Sales Account, reducing or increasing this to the correct figure. We sometimes find that allowances are made to customers in respect of damaged goods, short deliveries, or for goods which do not conform to specification in some minor detail and which it is not desirable should be returned. In all such cases the alterations should go to a special Allowance Account and not to the Sales Account. While such allowances will be deducted from the Gross Sales in the Profit Statement, the existence and extent of such allowances will be clearly displayed and the attention of the

management drawn thereto. If such allowances are large there is obviously something wrong either in the Producing, Packing, or Dispatching Departments and steps can be taken to rectify the position. Apart from the actual amounts which have to be allowed, considerable expense and trouble is involved in correspondence, etc., and there is always a danger that the goodwill of the customer, without which no business can be successful, may be damaged.

(*c*) Sales Returns

The return by customers of goods sold to them must also be watched carefully and hence a separate account should be kept of these and treated in a manner similar to, and with the same object as, Allowances. While in many businesses returns are inevitable, every effort must be made to keep the item as low as possible. Returns might be analysed with advantage to show if any area, or the customers of any particular traveller or branch, show an undue proportion of such returns and the reason therefore ascertained. Local conditions may account for the unsuitability of the goods, or the methods of certain salesmen may be unsatisfactory. On the other hand some customers are unduly critical and it would be advisable also to study the classes of people who make returns.

(*d*) Sales Analysis

Attention has already been drawn to the fact that the amount of sales will be affected by any change in either the quality of the article or a change in price-level. The influence of the latter can be checked by the quantity records, where available, or ascertained approximately by reference to one of the published index numbers of price-level. If this be done, there is little likelihood of wrong conclusions being drawn.

It is obvious that it is only through sales that a trading

business makes profits, hence the item is one of supreme importance in the management, and too much information cannot be given in respect thereof. Successful business houses are very careful in their study of markets, the selection and training of their salesmen, and the development of a progressive sales policy through advertising, etc.

The management also needs supplementary statements showing—

(*a*) Distribution of various products when such are handled.

(*b*) The distribution of sales over periods of time.

(*c*) The sales on the various territories or by individual travellers or by branches.

Such analyses are largely statistical in their nature but can to some extent be incorporated in the financial books if the Sales Account is kept on a columnar system. A suitable statement of the sales to show territorial sales would be as follows—

FORM "B"

ANALYSIS OF SALES BY TERRITORIES
For Year ended 31st December, 1937

MONTH	TOTAL	LONDON	HOME COUNTIES	SOUTH COAST	MIDLANDS	NORTH
	£	£	£	£	£	£
January	20,000	5,000	2,500	3,000	5,500	4,000
February	22,000	5,200	2,800	3,300	5,400	5,300
March	21,500	5,100	2,800	3,100	5,600	4,900
April	21,750	5,250	2,850	3,250	5,400	5,000
May	24,000	5,600	3,000	3,600	5,700	6,100
June	25,000	5,800	3,100	3,850	5,750	6,500
July	23,750	5,000	3,000	3,900	5,700	6,150
August	18,000	4,000	3,000	4,000	6,000	1,000
September	19,500	4,250	2,600	3,500	5,800	3,350
October	19,750	4,500	2,650	3,150	5,400	4,050
November	19,500	4,600	2,500	3,000	5,300	4,100
December	18,250	4,200	2,450	2,750	5,350	3,500
TOTAL	£253,000	£58,500	£33,250	£40,400	£66,900	£53,950

SUMMARY

	£	£	£	£	£	£
Highest	Ju. 25,000	Ju. 5,800	Ju. 3,100	Au. 4,000	Au. 6,000	Ju. 6,500
Lowest	Au. 18,000	Au. 4,000	De. 2,450	De. 2,750	No. 5,300	Au. 1,000
1st Quarter . .	63,500	15,300	8,100	9,400	16,500	14,200
2nd ,, . .	70,750	16,650	8,950	10,700	16,850	17,600
3rd ,, . .	61,250	13,250	8,600	11,400	17,500	10,500
4th ,, . .	57,500	13,300	7,600	8,900	16,050	11,650
TOTAL . .	£253,000	£58,500	£33,250	£40,400	£66,900	£53,950

The summary at the end shows the range of fluctuations for each area so that the reasons thereof can be ascertained. The heavy fall in sales in the Northern area in August would at once be singled out for attention. As the variations in sales in all areas are considerable, there would be no object in preparing averages of the sales over any period and the actual figures would be the best for comparison.

Similar statements can be prepared if it is desired to show the records of the branches, salesmen, or individual commodities. This can be done easily by altering the headings to the columns. If many commodities are handled it may be impossible to show these by territories for salesmen, but the following form could be used for, say, two different commodities—

FORM "C"

ANALYSIS OF THE SALES OF TWO COMMODITIES BY TERRITORIES

For Year ended 31*st December*, 1937

MONTH	TOTAL		LONDON		PROVINCES	
	Commodities		Commodities		Commodities	
	A	B	A	B	A	B
	£	£	£	£	£	£
January . .	15,000	20,000	6,000	13,000	9,000	7,000
February . .	14,500	21,000	6,500	13,200	8,000	7,800
etc.						

A similar summary to that given for "B" could also be prepared.

Another very useful statement, or one which can be combined with the two preceding ones shows not only the sales for each period, but the cumulative (or total) sales to the end of each period. This cumulative figure is useful for showing the actual sales done and, when compared with purchases and stock, will indicate whether purchases are keeping pace with the outgoings.

The following statement illustrates the procedure and is compiled from the figures shown in Form "B"—

FORM "D"

ANALYSIS OF SALES AND CUMULATIVE SALES BY TERRITORIES

For Year ended 31*st December*, 1937

MONTH	TOTAL		LONDON		HOME COUNTIES	
	Monthly Sales	Cumulative Sales	Monthly Sales	Cumulative Sales	Monthly Sales	Cumulative Sales
	£	£	£	£	£	£
January	20,000		5,000		2,500	
February	22,000	42,000	5,200	10,200	2,800	5,300
March	21,500	63,500	5,100	15,300	2,800	8,100
April	21,750	85,250	5,250	20,550	2,850	10,950
May	24,000	109,250	5,600	26,150	3,000	13,950
June	25,000	134,250	5,800	31,950	3,100	17,050
July	23,750	158,000	5,000	36,950	3,000	20,050
August	18,000	176,000	4,000	40,950	3,000	23,050
September	19,500	195,500	4,250	45,200	2,600	25,650
October	19,750	215,250	4,500	49,700	2,650	28,300
November	19,500	234,750	4,600	54,300	2,500	30,800
December	18,250	253,000	4,200	58,500	2,450	33,250

With such a table there is little need for a summary as the essential information can easily be seen.

Information of the nature suggested above is bound to be useful to a progressive management as the position is

clearly disclosed, and, if the results are compared with those of the preceding year, or the standard used, it may be found that while sales have increased in some districts they have fallen off in others. Allowances must, however, be made for holiday periods which may not fall into the same period each year, e.g. Easter, Whitsuntide, or local holidays, etc. It will then be possible to decide whether additional attention is to be given to areas which are unsatisfactory, or if it is advisable to concentrate on the development of those which look more promising. The consumption *per capita*, however, must be first ascertained as suggested earlier.

A manager may find it of great advantage to be told the number of new accounts opened and the amount of sales made to these new customers, while the departmental stores require the number of sales slips made out each day and thus ascertain the actual number of sales made. This information is generally analysed on a departmental basis. It is usually assumed that each slip represents a sale to a different customer, but such is not necessarily the case as one customer may buy in two or more departments, but the number of sales made does give valuable information as to the staff necessary in the departments. Similarly, one often finds that the sales slip provides a space in which the time at which the sale takes place is recorded, thus showing the "density of demand." Such information permits proper arrangements being made for adequate staff being available during the peak-hours of demand.

(*e*) Unfilled Orders

A very valuable form of departmental statement is one showing unfilled orders. These should be made out at frequent intervals and will at once disclose whether production or purchases is in arrears and thus lead to steps being taken to ensure that there is no unreasonable delay in filling orders, or that normal times of delivery are not being exceeded.

The statement could take the following form—

REPORT OF ORDERS FOR $\frac{\text{MONTH}}{\text{WEEK}}$ ENDED......................

	No.	Amount	No.	Amount
		£		£
Orders in hand at beginning of (month / week)			20	1,000
Orders received during (month / week) .			170	11,900
			190	12,900
Orders cancelled ,, ,, .	1	50		
Orders executed ,, ,, .	160	11,000		
			161	11,050
Orders unfulfilled end of (month / week) . . .			29	£1,850

The position disclosed in the statement is not a satisfactory one and unless the number and amount of orders are abnormal it is obvious that steps must be taken to speed up production or hasten delivery of purchases, unless inquiries show that production has actually taken place, or goods ordered have been received, in which case it is the Packing or Delivery Departments which are at fault. It matters not what has gone wrong—the management at once becomes aware of the fact, and hence the more frequently such statements are prepared the more quickly can steps be taken to put matters in order, thus achieving efficiency, and preventing complaints from customers.

CHAPTER V

TRADING AND REVENUE STATEMENTS (Contd.)

1. PRODUCTION REPORT

Attention has already been drawn to the necessity for information regarding unfulfilled orders in the Sales Department, but it is of equal importance for the course of production or for the purchase of goods for resale to be watched. If the period of production is short, or the output too low as regards the sales experience, then stocks of goods available for dispatch are falling, and the time may come when the demands of customers cannot be speedily met. If people are forced to wait a long time for their goods, dissatisfaction arises and the business suffers. On the other hand, if production or purchases are greater in quantity than the sales, then stocks of goods are accumulating and capital is locked up unnecessarily. In businesses of a seasonal nature, however, it often occurs that production has to take place and stocks be accumulated in the "off season" in order that demand may be met when it arises. Good examples of such a procedure are Christmas cracker and card manufacturers who produce their goods throughout the year in order to meet the demand in a few short weeks before the festive season. Firework manufacturers are in a very similar position. It is sometimes possible to move some of these

goods by selling against invoices dated "forward," i.e. as if the sale had taken place at a later date. The effect of this is to give extended credit, and while storage space is reduced the financial position is not affected at all. An electricity undertaking in a residential area works at a loss in the summer months, as much of the current generated is not used and storage is impossible.

The quantities of goods, or the classes of goods manufactured or bought during a selected period, should therefore be the subject of reports by the Factory, Purchasing Department, etc., together with the costs per unit. This enables the management to compare production from period to period, and to inquire into the reasons for reduced or excess output and to locate and stop waste.

2. DEPARTMENTAL PROCESSES

When manufacturing entails the output of one process being used by another (e.g. manufacturing of a motor-car engine is essential before the car can be assembled for testing and delivery), it is of very great importance that the balance of output be carefully watched, as otherwise the assembly line and the output will be delayed through failure to deliver a component at the right time, men will be standing idle, and thus non-productive expense will be incurred to the detriment of the profit.

The production report should show the quantities and cost of goods completed, the stocks of raw material, and the prime cost of work in progress in a manner similar to that in Appendix B. The actual prime and factory cost per unit will also be shown, as these are the most useful factors for comparison with previous results.

3. PURCHASE RETURNS AND ALLOWANCES

In arriving at the cost of purchases of raw material any returns which have been made to suppliers will, of course,

be deducted, together with any reductions in price or bonuses which are given after certain large quantities have been bought. From a management point of view any return of goods purchased is not so important as the returns made by customers (i.e. Sales Returns). It must not, however, be overlooked that returns entail unnecessary expense in unpacking, repacking, dispatching, advising the firm concerned, and making the necessary entries in the books, etc., as well as the possible inconvenience due to late delivery, and must therefore be avoided as much as possible. Any allowances off the original price should also be deducted from the gross cost of purchases.

4. STOCKS OF RAW MATERIAL

The quantities of raw material or finished parts in stock must be carefully reviewed at regular and frequent intervals to avoid shortage at any point of production. For this to be done properly, departmental statements are necessary. Comparison should be made of the quantities used with the length of time taken to obtain fresh supplies, either from outside or from the department producing the items ready for the next process. Overstocking should be avoided but it is better to carry too much rather than too little stock, as though capital is locked up unnecessarily, production can go on unhindered. Thus if it takes a fortnight to obtain fresh supplies there should be more than a fortnight's supply of raw material, otherwise production may have to cease or be curtailed. Future needs must also be considered as, if past experience shows that at certain periods production has to be increased, it is obvious that steps should be taken to increase stocks of raw material accordingly. It is becoming increasingly common for contracts to be made for the supply of raw materials and goods over a lengthy period, deliveries to take place as and when required, subject to

minimum periodic demands. This avoids locking up stock unnecessarily, but the supplying concern is then placed in the position of holding goods on account of their customers.

5. PROCESS COSTS PER UNIT PRODUCED

When different processes are necessary, the cost per unit of each process should be ascertained and comparison made with the price at which similar goods could be obtained from outside sources. While it may be very convenient to have all forms of production under one roof, yet, if the component produced can be obtained from independent suppliers more cheaply than it can be manufactured, a reduction of profit will ensue when the finished article is subject to competition. Thus a brewer can either make his own malt or buy it, but if his costs for malting are higher than the price at which he can buy malt from a maltster it is not an efficient proceeding to maintain his own maltings. The increased cost may be due to the maltings working for a part only of the normal working period. This would occur when the time taken in malting is less than that necessary in brewing.

On the other hand, however, the general administration expenses of the business would not be increased by the same figure as the overhead expenses of a separate business producing the component would amount to, and moreover the total overhead expenses of the self-contained business are spread over a larger number of departments, and, all other things being equal, should result in a general lowering of all departmental costs.

The following statement shows the costs of a business which buys partly manufactured goods and then completes them ready for sale and actually produces 100,000 articles—

		Total Cost	Cost per Unit Produced
		£	£
Cost of Partly Manufactured Goods Used		27,000	0·27
Labour Cost of Finishing		8,000	0·08
Factory Expenses		5,000	0·05
Factory Cost		40,000	0·40
General Administration Expenses—	£		
Management Salaries	1,500		
Office Salaries	1,200		
Directors' Fees	600		
Audit and Legal Expenses	150		
Bad Debts	450		
Selling Expenses	750		
General Expenses	350		
		5,000	0·05
Total Costs		45,000	0·45
Selling Price		55,000	0·55
Profit		£10,000	£0·1

Inquiries show that the following would be the costs of producing the partly finished goods used, assuming that a proper proportion of all expenses is charged—

			Cost per Unit
		£	£
Material Costs		10,000	0·1
Labour Costs		6,000	0·06
Factory Costs		5,000	0·05
Factory Cost		21,000	0·21
Administration—	£		
Management Salaries	1,000		
Office Salaries	450		
Directors' Fees	250		
Audit and Legal Fees	100		
Bad Debts	200		
Selling Expenses	600		
General Expenses	400		
		3,000	0·03
Total Costs		24,000	0·24
Selling Price		27,000	0·27
Profit (12½% on Cost)		£3,000	£0·03

If we assume that the finishing business decides to inaugurate a department for producing the partly finished articles, the cost of material and labour will probably remain the same, though if wage rates are different in various parts of the country some alteration may take place if the location of the production is changed. This factor can, however, be easily assessed. The factory expenses may be reduced by lower charges for power, lighting, heating, etc., owing to the greater quantities demanded, lower rent, etc., but for the purposes of our argument we will take them as being the same, as it is on administration expenses that saving may be effected. Thus management salaries included in the first process cost can be either dispensed with, or reduced, as the general manager of the business can control the two departments, but even if additional assistance be necessary it would not need to be remunerated at the same rate as before, and an allowance of, say, £500 for this item may be allowed. The office staff may need to be increased, but not on the same basis as that of the separate business, as the increase in general management and accounting work will not be on the same scale as that of an independent organization. Let us increase office salaries therefore by £250, which would be a generous allowance. The directors' fees, selling expenses, and bad debts of the business would be entirely eliminated. It might, of course, be argued that in the statement of costs of the independent business which are applicable to the goods sold to the finishing house, no addition for bad debts needs to be made, but any bad debts incurred must form part of the general overhead expenses and every customer must bear his share. Audit and legal charges and general expenses of the complete business might show an increase, and therefore we will add 50 per cent of the figures charged in the cost of the component. The administration expenses after establishing the new department, and assuming the same output as before, would now be as shown on page 94.

	£	
Management Salaries	2000	(i.e. £1500 + £500)
Office Salaries	1450	(i.e. £1200 + £250)
Directors' Fees	600	
Audit and Legal Expenses . .	200	(i.e. £150 + £50)
Bad Debts[1]	450	
Selling Expenses[1]	750	
General Expenses	550	(i.e. £350 + £200)
Total	£6000	(i.e. £5000 + £1000)

This total of £6000 is now to be borne by two departments rateably and it might be argued that as £5000 was the cost of general administration, only the additional £1000 should be charged to the new department, and while there is much to be said for this it would be better to divide the total on some equitable basis. Thus, if the time occupied in production is the same in each section (and this has been assumed so far), the total should be charged equally to each department and then the costs of the first process would be the same as that of the individual business, viz.—

		Cost per Unit
	£	£
Material Costs	10,000	0·1
Labour Costs	6,000	0·06
Factory Costs	5,000	0·05
Proportion of Administration Expenses . .	3,000	0·03
Total	£24,000	£0·24

When produced by themselves the business would not however have to bear any charge in respect of the profit

[1] These expenses might justifiably be charged against the finishing department only, as they arise only out of the sale of the completed product.

included in the price previously paid, and hence the position of the Finishing Department would be as follows—

		Cost per Unit
	£	£
Cost of Partly Manufactured Goods used . .	24,000	0·24
Labour Cost of Finishing.	8,000	0·08
Factory Expenses	5,000	0·05
Proportion of General Administration Expenses.	3,000	0·03
	£40,000	£0·4

a saving of £5000 or £0·05 per unit. Thus, if the selling price of the finished products is unchanged, the profit will increase by £5000, i.e. from £10,000 to £15,000. Alternatively, a lower price could be charged for the product when in competition without reducing the rate of profit earned before the department was inaugurated, and such lower price might result in more orders, greater production, and a still further reduction in the cost per unit.

6. DEPARTMENTAL PROFITS

In some businesses it is customary for the goods passed from one department to another to be transferred at a cost designed to give to the Producing Department the normal rate of profit which would be earned by an individual business. Each department would thus be regarded as a separate business from a profit-earning point of view. If this were done in the case above, the partly finished goods would be delivered to the Finishing Department at £27,000 (i.e. Cost plus 12½ per cent) and this department would show a profit of £3000 and the Finishing Department's costs would increase by £3000, making the cost per unit £0·43. The profit of this section would fall from £15,000 to £12,000, but the profit of the business as a whole would be unchanged. It will be observed that even in this case, where the Finishing

Department is charged at the same figure for the goods they need as they would pay for them when bought from outside sources, yet the actual cost of the goods produced by them is lower, the reduction from £0·45 per unit to £0·43 being due to the spreading of the administration expenses over two departments.

7. DEPARTMENTAL STOCK VALUATIONS

When the whole of the partly manufactured articles passed to the Finishing Department are not completed at the end of the year, the cost at which they are transferred will be taken into account to get the actual cost of those completed. Such stock of unfinished articles must, however, be taken only at their actual cost or market price, whichever is the lower, for insertion in the Balance Sheet, and this means an adjustment of the profit. Thus, supposing the statement of the Finishing Department shows that the cost of partly manufactured goods used is obtained as follows—

	£
Goods received from Production Department . . .	24,900
Less Cost of Partly Finished Goods on hand at cost to Department	900
	£24,000

Then the value of the stock remaining on hand would have to be taken as $\frac{100}{112 \cdot 5} \times 900 = £800$, so that the final profit would be reduced by £100 through this necessity for bringing in stocks at their actual cost. Similarly any stock of finished goods unsold at the date of the Balance Sheet would be subject to a reduction for similar reasons, so that a stock of finished goods at a cost price of £4000 would have, on the basis of the above, to be reduced by the proportion of profit on the materials used in the partly finished goods which are absorbed in the production of the total, viz. $\frac{12 \cdot 5}{112 \cdot 5}$ of $\frac{24,000}{40,000}$ of £4000.

This amounts to £266 13s. 4d., which sum must be deducted from the profit shown. If, however, it is found that such goods as are held by the departments can be purchased outside at a lower figure than the cost obtained by this method, then it is this lower value which must be taken. This procedure does ensure that the profits will be taken on a very conservative basis, and will consist of the difference between the actual cost of the goods sold and the price at which they are sold.

8 PRICE CHANGES AND EFFECT ON DEMAND

Reference has been made to the fact that, when costs are reduced, either additional profit will accrue or the selling price can be reduced. If the goods are such that the demand is "elastic," i.e. that a reduction of price is accompanied by an increased demand, the amended figures shown above would immediately give rise to a consideration of price reduction and its effects. If the rate of profit on the cost price is taken to be 22·25 per cent (as a matter of fact it is 22·22 per cent) when articles were sold at £0·55, we find that the selling price after adding the same percentage to the cost of £0·4 (the true cost) would be £0·489. If we sold only the same quantity at this price as before, our actual profits would only be £0·089 × 100,000, or £8900, which is £100 lower than before, but if, *without increasing our expenses*, as would happen if our staff had not been fully occupied previously, we could sell 140,000 at this lower price, our profit would increase to £12,460, an increase of £2460 on the original result. This additional profit would be obtained quite apart from the fact that, as already shown, our actual costs would also have decreased. If, however, it became necessary to increase expenses to make the additional sales, the advantage might easily disappear. The following reproduction of an advertisement shows the effect which reductions in prices have on the sales, but this would not necessarily follow in all businesses.

CHANGE IN SALES AND PRICES OF CADBURY'S CHOCOLATE

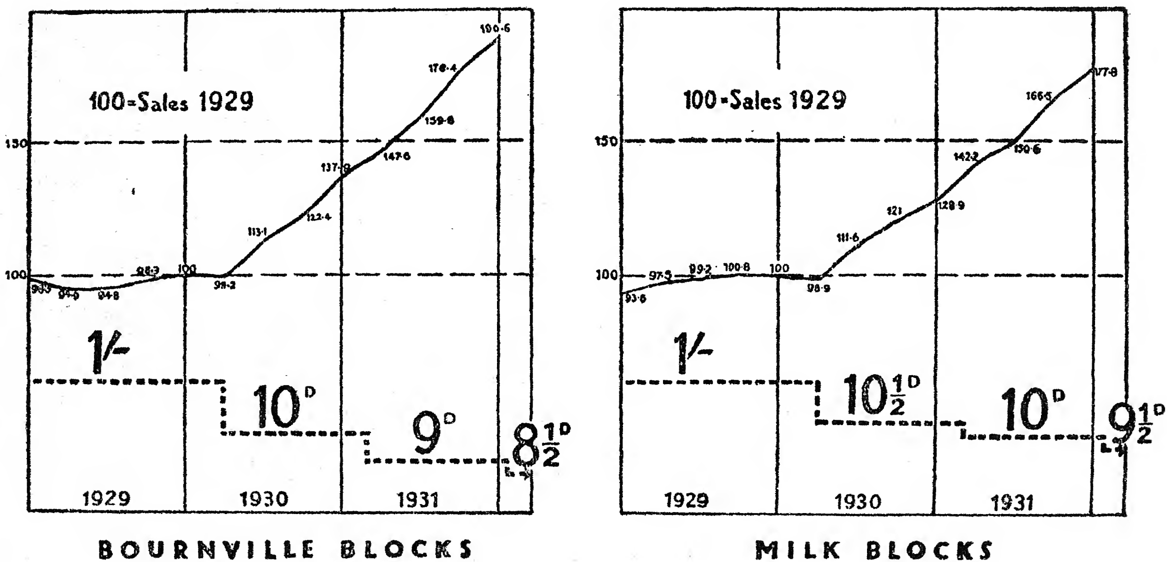

FIG. 2

It follows from this that, apart from any reductions in cost, the question of the rate of profit is an important one, as, if this be decreased and sales rise to a greater degree, the business will show a larger profit. The following chart shows the amount of sales necessary to cover the costs and certain rates of profit thereon and hence the extent to which business must be increased to compensate for any reduction in the rate of profit—

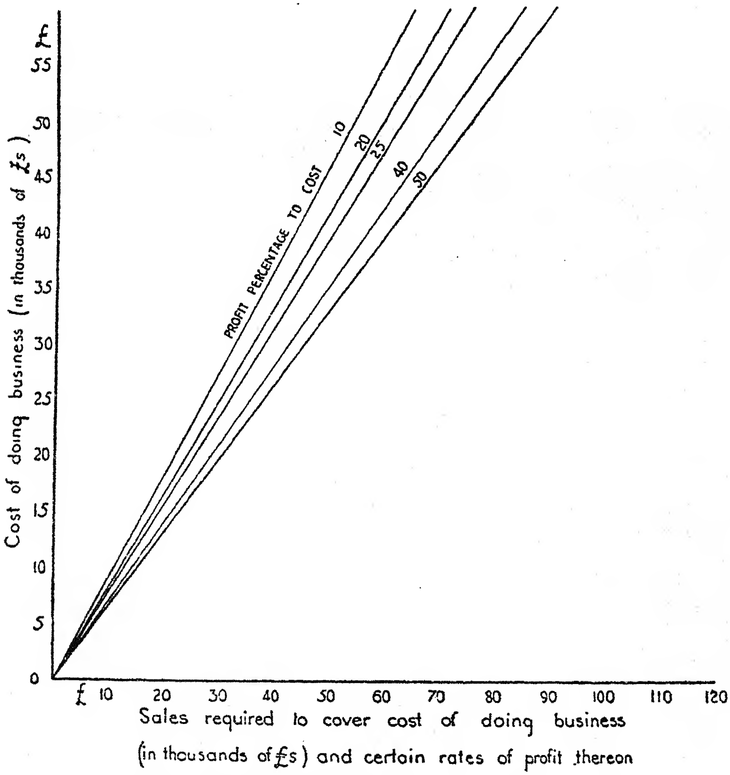

FIG. 3. CHART SHOWING RELATIONSHIP BETWEEN COSTS AND SALES AT CERTAIN RATES OF PROFIT ON COST

From this it will be seen that if costs are £40,000 and the rate of profit on such costs is 20 per cent, the sales must amount to £48,000 to cover costs and give the requisite profit, whereas if the rate of profit is to be 40 per cent, no less than £56,000 of sales must take place. Lines for any other rate can easily be shown. All that is necessary is to follow the line for any amount of costs until the profit line is "cut" when the vertical line will give the sales amount.

9. STOCKS OF FINISHED GOODS

In a manufacturing business the question of the length of time taken in manufacturing, or in a trading concern the time taken to obtain delivery of goods after ordering, is very important in relation to the stock of goods in hand. If the process of manufacture or obtaining delivery of goods takes a period of, say, four weeks, it is essential that the stock should be sufficient to cover this period with a small addition to cover unexpected delays, and hence in considering whether a stock figure is too large, too small, or adequate, this period of replacement must be given consideration. In order that the management may be fully acquainted with the position, the stocks must be analysed to show the actual position. Thus, in a business with Manufacturing and Finishing Departments, a statement on the following lines might be prepared—

	£
Stock of Raw Materials in Manufacturing Dept.	7,200
Work in Progress in Manufacturing Dept.	5,000
Stock of Partly Manufactured Goods in Finishing Dept. on which work has not commenced	4,800
Work in Progress in Finishing Dept.	10,500
Stock of Finished Goods in Finishing Dept.	15,000
Total	£42,500

It has been assumed that all goods purchased in the Manufacturing Department are passed to the Finishing

Department immediately work on them has been completed and thus the first named department would only have stocks of raw material and work in progress.

10. RAPIDITY OF TURNOVER

The profit-earning capacity of a business is affected to a remarkable degree by the rapidity with which goods produced or purchased can be sold or "turned over." The actual percentage of profit made on sales does not mean very much, unless one knows how many times the profit can be realized on a reinvestment of the proceeds of sales in fresh goods. Thus, if an article sells so rapidly that the stock requires replenishment every month (or twelve times a year), the return to the business of the investment of money in stock is twice as great as if the turnover were six times a year, unless additional costs are incurred in making the additional quantities, such as when overtime has to be worked at increased labour costs. Goods on which a gross profit of 33 per cent on sales is realized may not be so profitable as those on which 25 per cent is realized but on which the rate of turnover is more rapid.

That rapidity of turnover has an affect on profit on the capital invested in stock is clearly shown in Fig. 4.

The lines radiating from the zero point show the percentages of net profit on sales, the horizontal scale the percentage of profit actually earned on the capital employed in obtaining the goods, while from the vertical can be read the number of times the stock is replaced. Thus, if we take the line showing 5 per cent net profit on sales, and stock is replaced four times a year, we earn 20 per cent per annum. This percentage is that actually earned on the trading operations and not that shown by the accounts as earned on the actual capital of the business. If the rate of turnover increases by 50 per cent (i.e. to six times per annum), the annual rate of profit is 30 per cent. At one time there were a

number of S.P.Q.R. Stores, i.e. "Small Profits—Quick Returns," presumably founded to exploit this principle.

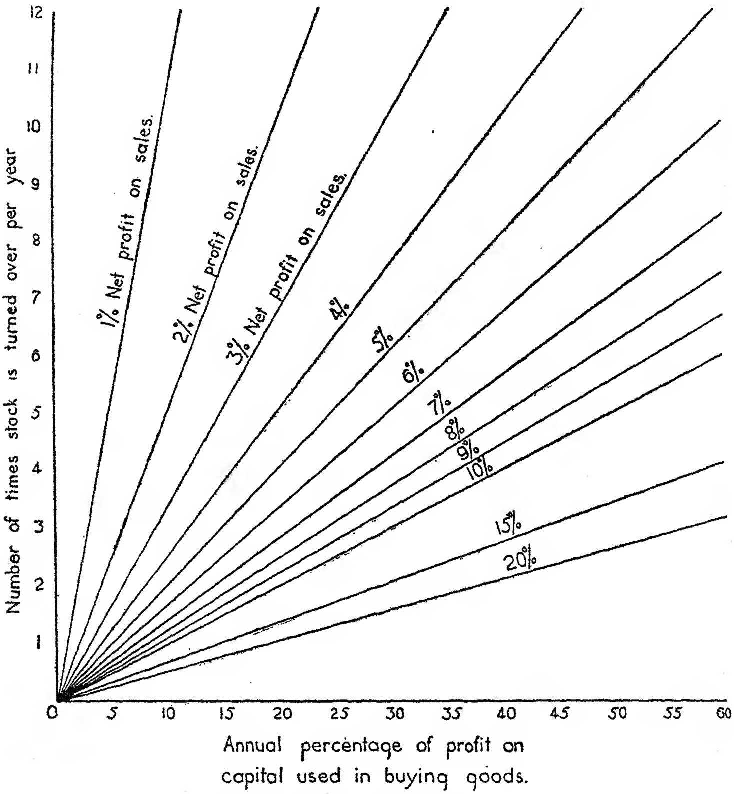

FIG. 4. CHART SHOWING YEARLY PERCENTAGE OF PROFIT ON CAPITAL INVESTED IN GOODS AT DIFFERENT RATES OF PERCENTAGE OF NET PROFIT AND VARYING RAPIDITIES OF TURNOVER

If the rapidity of turnover be increased through a reduction in price, it may be found that the annual percentage of profit on sales will be larger owing to the increased quantity of goods sold. Let us suppose the rate of profit on sales

is reduced from 10 to 8 per cent, but the turnover is increased from four to five and a half times, then we get an increase in the annual percentage of profit of 3 per cent, i.e. it is now 43 per cent as against 40 per cent.

To calculate the rate of turnover, we divide the actual cost of the goods sold by a figure representative of the stock. This stock figure may be either (*a*) the amount of the opening stock; (*b*) the mean of the opening and closing stocks; or (*c*) the average monthly stock. Where trade is steady and the stock carried does not fluctuate greatly, there is little to choose between (*a*) and (*b*), but where seasonal trade necessitates heavier stocks being carried at certain times, then the average monthly stock should be used.

The ability to turn over goods quickly indicates good management, but in arriving at a decision on this point all the facts attaching to each individual case must be considered. There may be good reasons why the rate of turnover has been reduced. It must be borne in mind that if at the end of the year a large increase in the stock has taken place due to preparations for a special sales campaign, the rate of turnover as calculated from the above formula will be reduced and hence the reasons for any deviation from the previous rates of turnover should be ascertained. If the rates have definitely declined, smaller stocks can be carried with advantage, and hence the percentage of profit on the capital employed in stock can be maintained. There is, however, a danger in reducing the amount of stock in order to increase the turnover, in that if too small a stock is carried there may be inability to fulfil any large orders quickly. It is necessary therefore to make an estimate of future requirements and from such estimate and past experience decide the lowest and highest limits for this stock. If different commodities are handled there is no reason why the same rate of turnover for them all should not be attained by means of stock adjustments. It is obvious, for example,

that the volume of sales of safety razors will not be the same as the blades, and hence there is no necessity to carry so large a stock of razors as of blades.

Where various articles are sold it is advantageous to ascertain the rate of turnover of each, as, until this is found, the profit-earning capacity of the article cannot be gauged. Comparison of the rate of turnover of any individual business with the general standard of rapidity for the area or trade would show at once whether the business was as efficient in this respect as its competitors. If the turnover is higher, then the efficiency of management would, all other things being equal, be greater. The converse would also apply.

11. EXPENSES AS DISTINCT FROM EXPENDITURE

In arriving at the expenses to be charged against the profits, no matter under what heading such expenses are classified, we must take care to charge the actual amounts applicable to the period, whether they have been paid or not. When goods are sold, whether for cash or on credit, the Sales Account is at once credited and the profit thereon taken even though the debtors have not at that time discharged their obligations. It follows therefore that all accrued charges must be placed against such profits even though they are not payable for some time to come. Thus if, say, rent is payable in arrear half-yearly on 29th September and 25th March and accounts are made up to the end of December, there is one quarter's rent [1] accrued in respect of the period covered by the accounts and the item of rent must be increased accordingly, the landlord being treated as a creditor for the amount. Conversely, if sums have been paid in advance, such as insurance premiums, or rates, the period under review must only be charged with the proportion

[1] Actually the apportionment should be made on a daily basis, as the quarters do not contain the same number of days.

applicable to the period. Thus if an insurance premium of £100 is paid on 29th September and this is for a period of one year, then, if accounts are being prepared as at 31st December, only one-quarter of the amount (viz. £25) applies to this particular accounting period and the balance will be carried forward and charged as part of the next year's expenses, in the meantime being regarded as a sum due to the business. The principle is that each year must bear its own expenses whether such expenses have been paid or not.

The Chancellor of the Exchequer, however, in the National Accounts ignores all these adjustments and arrives at his surplus or deficiency from the difference between cash received and paid; thus any revenue accrued but not paid, as well as items owing but not discharged, are omitted from consideration.

Many professional firms, e.g. solicitors, accountants, doctors, etc., adopt a somewhat different attitude, for, while charging all expenses, both paid and accrued, they only take credit for fees actually received.

It is, however, much preferable for them to prepare a statement showing the actual profit on operations and then adjust this profit so ascertained to the basis of cash received. This can be done in the manner shown in the following example where a firm of solicitors in their first year's business showed the following results—

	£
Amounts of Bills of Costs rendered	9000
Amount of Cash received in respect of such bills	6000
Office Expenses paid	3000
Office Expenses accrued, but not paid	250
Work Completed for which no Bills have been rendered	2000
Costs incurred in connection with Work in Progress and not completed	1000

The actual income of the firm on the basis of work done is £12,000—made up of Fees Charged £9000, Work Completed but not charged to clients £2000, and Work in

Progress £1000. After charging Expenses paid and accrued £3250, we get a profit of £8750 as shown in the first part of the statement below. Against this profit, however, Reserves for unpaid and unrendered Bills are then made, reducing this profit to £2750 as shown in the second section of the following Profit and Loss Account—

	£	£		£
To Expenses paid .	3,000		By Fees received . .	6,000
,, Expenses accrued	250		,, Fees owing . .	3,000
		3,250	,, Work Completed but not charged . .	2,000
,, Profit on Work .		8,750	,, Work in Progress .	1,000
		£12,000		£12,000
To Reserve for Debtors .		3,000	By Profit as above . .	£8,750
,, Reserve for Work Completed and not charged		2,000		
,, Reserve for Work in Progress . . .		1,000		
,, Divisible Profit . .		2,750		
		£8,750		£8,750

Needless to say, this is a very conservative basis indeed, as the assumption is that no more money will be collected in respect of that year's business, but in dividing profit it is always advisable to provide for every possible loss which can arise. In the next year, the Profit and Loss Account will be charged with the Work Completed and in Progress and with the fees owing, and credited with the Reserves against them and a similar proceeding to the above carried out.

If we examine the expense items in Appendix B carefully, it will be seen that certain items have actually entailed cash payments, e.g. Wages, Travelling Expenses, Carriage, Legal Expenses, etc., but there are some items which are charges but in respect of which no direct cash payments have been incurred, e.g. depreciation on plant and lorries.

12. DEPRECIATION ON ASSETS USED IN EARNING PROFITS

When charging depreciation we are providing for the loss of the money expended on fixed assets, such as plant and machinery, and which will be lost when the asset is no longer of any use. Depreciation may be defined as the shrinkage in the value of an asset from any cause whatever during the period under review. When an asset such as plant is purchased for the purpose of being used in earning income for the business, and in the course of utilization becomes of less value, the decrease in the value is a loss which should be set off against the income derived from working the asset before arriving at the divisible profit. If this loss be not charged, then the profit disclosed will not be correct, the Balance Sheet will not show the proper value of the asset, and thus will not disclose the true and correct position of the business.

It is sometimes argued that this loss is not a revenue loss which should be borne by the profits, but a loss of capital which has been expended on such assets. The Courts have upheld this view in several cases which have been before them, and so long as the proprietors realize that the profits they are taking from the business are accompanied by a loss of part of the capital invested, little can be said. Thus, supposing a company is working a sand-pit and does not write off the amount spent in acquiring the site, then, when all the sand has been extracted, the total sum paid for the land will have been lost. It cannot be too strongly emphasized that if the whole of the profits of a business are withdrawn without providing for the loss arising through depreciation, no moneys are accumulated out of revenue during the period of usefulness of the asset for the purpose of replacement of such asset when its utility expires. It follows that when it becomes necessary to scrap the old asset and buy a new one, fresh capital must be provided for that purpose, and this is not always possible.

The argument is sometimes advanced that if the asset be maintained in a proper state of repair in order to ensure efficient working, there is no depreciation, and this view appears to be adopted by railways and certain other public utility undertakings. The argument, however, ignores the fact that depreciation occurs through external causes such as obsolescence as well as through wear and tear. If a new machine be produced which will do the same work more speedily and cheaply, the old one will have to be scrapped if the profit-earning capacity of the business is to be maintained. There will also undoubtedly be a stage when the cost of repairs and maintenance will become excessive and it may prove to be cheaper and more advantageous in the long run to scrap the machinery and in such a case the cost of such replacement should fall on revenue. This is the procedure adopted by our railways and the result in its ultimate effect is the same as charging depreciation. It is quite true that the income tax authorities do not allow depreciation due to obsolescence as a deduction when arriving at taxable profits, and that they only permit a reduction of profits in respect of wear and tear.

It should be added that where municipalities and other local authorities own trading undertakings, e.g. tramways, water supplies, electricity works, etc., depreciation is not taken into account by them in arriving at the surplus or deficiency on the operations, but as they borrow money to acquire the necessary assets and such *loans have to be paid off out of revenue over the life of such asset* and they can then borrow again for replacements, the result is exactly the same as when the sum expended is regarded as fixed capital and the shrinkage in value charged against revenue.

There are various ways of providing for depreciation, but these are dealt with in all textbooks on book-keeping and accounts and so need not be considered here. If too much or too little depreciation is provided, the actual profit

will be affected and the values of assets will be either too high or too low. These effects will be considered later. From the point of view of the profit or loss the correct depreciation should be charged, otherwise we do not get the true position.

It is sometimes found that proprietors of businesses, and more particularly directors of companies, are reluctant to charge depreciation in years when profits are reduced or losses made, but the shrinkage in values goes on whatever the results of the trading activities, and the elimination of the item should not be countenanced if the real position is to be ascertained.

It should be noted that these comments on depreciation are only intended to apply to such assets as are definitely used in the earning of revenue from the normal trading operations of a business. Other aspects of the matter will be dealt with later.

CHAPTER VI

TRADING AND REVENUE STATEMENTS (*Contd.*)

1. REPAIRS AND MAINTENANCE OF ASSETS

Closely connected with the question of depreciation is that of repairs and maintenance of assets used in connection with the business. All charges in respect of the use of the plant, machinery, or of any asset used in producing goods, or preparing them for sale, will obviously form part of the costs of production, while those on lorries, vans, etc., are part of the expenses of distribution. The expenses in respect of any other asset will form part of the general and administration expenses. In no circumstances should any such charges be added to the asset account, even though this is offset by a higher rate of depreciation, as the object of all such expenditure is to maintain the asset in an efficient working condition, and it does not increase its value.

It is always advisable that the real cost of maintenance should be shown and then the advisability or otherwise of replacing the asset with a modern or more efficient machine can be considered properly, for such expenditure tends to increase with the age of the machine. Where the expenditure

on this item is of a variable nature and considerable in amount, it is better to estimate what this expenditure is likely to be over the life of the asset and then charge the revenue with a proportionate amount for each year irrespective of what has actually been expended. The amount so charged is credited to a Maintenance Reserve Account against which all sums actually expended should be charged. The balance of such Maintenance Reserve should be shown as a separate item in the Balance Sheet. This procedure ensures that any heavy expenditure which may be incurred will not affect the costs of the year in which it occurs, but is spread over the whole life of the asset. This is the procedure commonly adopted by railway companies who might find that, after a number of years in which the charge for maintenance was small, they are faced with very heavy replacements in order to maintain the efficiency of the service required of them by Acts of Parliament.

2. RESERVES

Reserves are created by charging profits with certain sums not actually expenditure and holding such sums until certain eventualities occur. There are two main forms of Reserve, viz. (1) General, and (2) Specific. The first-named will be dealt with later, as its creation is not a charge against profits but the retention of a portion of them. A Specific Reserve, however, is an amount charged against the profits to provide for some possible loss, or a loss which it is known will occur, but the amount of which can only be estimated. Examples are: doubtful debts, damages and costs which may have to be paid as a result of an impending or undecided lawsuit. The effect of creating Specific Reserves is to retain in the business certain amounts of the profits pending the ascertainment of the real position.

Any losses sustained through non-payment by a customer

will, of course, be a charge against revenue, but at the end of any accounting period there will still be debts owing for goods supplied or services rendered, and in respect of which sales or fees profits have been taken. It is only equitable that such profits should bear any losses which follow from the transactions, but as periods of credit may be long and some considerable time must elapse before the actual losses can be ascertained, it is obvious that we cannot wait till the debts are collected or proved bad before finding our profit. It therefore becomes necessary to charge against revenue an estimated amount of loss, holding such amount in Reserve or Suspense until the actual loss occurs, when it can be charged against such Reserve. The management should know exactly what debts have proved uncollectable, while past experience will show what proportion of the debts owing are not likely to be collected. Usually the auditor goes into this matter very carefully.

Reserves for expected losses of any kind will receive similar treatment, for unless some allowance for such losses is made we do not get the true profit of the period and some other period will be saddled with them while not getting the benefit of any profit arising from the original transactions.

3. APPORTIONMENT OF EXPENDITURE BETWEEN CAPITAL AND REVENUE

The distinction between capital and revenue expenditure is of extreme importance if we are to show the real profit or loss made on trading and the Balance Sheet is to be a true statement of the position of the business.

Capital Expenditure may be defined as all expenditure incurred with the object of acquiring assets by means of which the business may be carried on, or the profit-earning capacity be increased. The assets acquired are not absorbed in the process of earning profit, though they may become

exhausted in use over a longer or shorter period. Examples of such expenditure will be the sums spent on land and buildings in which to carry on business; on plant and machinery to produce the goods in which the business deals; on lorries and vans wherewith to deliver the wares to customers, etc. Such assets acquired are generally known as *Fixed Assets*, and the sums spent on their acquisition are therefore capital expenditure.

Revenue Expenditure is all expenditure incurred in carrying on a business and in maintaining the assets acquired through capital expenditure in an efficient state, e.g. money spent on buying goods for resale; the amounts expended on wages, rent, repairs, etc., etc. Many of these items have already been dealt with, as all such expenditure should be charged against profits.

When fixed assets are acquired, the exact expenditure thereon is known and can be charged to the appropriate asset account, but it is frequently necessary for adjustments to be made in order to ensure that expenses in connection therewith are not charged to revenue. Thus, when landed property is bought for occupation or investment, certain legal expenses must of necessity be incurred in order to establish ownership and obtain possession. These charges are not charges against revenue, but are part of the cost of the asset and should be so treated. Similarly any expenses necessarily paid upon the sale of such property would reduce the sum received. In the case, however, of a builder or estate development company, all such expenses are revenue items, for the sum paid for the purchase of land is not a capital but a revenue expenditure. If workers are engaged on the erection of machines, or on extensions, their wages should be charged to the asset account concerned and not to the General Wages Account.

Materials normally used in manufacturing, which are taken for capital purposes, must be deducted from purchases

if we are to get the proper costs, and hence the real profit, and the amount added to the asset. If old plant is dismantled by the owner's own workmen the cost of such work should be charged to the Old Plant Account, which should be credited with the proceeds from the sale of any residue and the balance regarded as a special loss. This should not be regarded as a charge against the revenue derived from trading operations, for, as already pointed out, the Revenue Statement should show only the profit or loss arising from the carrying on of the business.

In an engineering works it is customary for many of the loose tools to be made by men when production is slack and their time not fully occupied. Care must be taken to see that any materials used or time employed on such work are charged to the Loose Tools Account and not to the manufacturing costs. The stock of such tools should be taken each year and valued at cost, any difference being taken to the Revenue Statement. This value may be either higher or lower than that at the beginning of the period.

4. DEFERRED REVENUE EXPENDITURE

Occasionally we find that during an accounting period payments have been made or liabilities incurred in respect of work done or service rendered, such items being in the nature of expenses, but the full benefit to be derived from such expenditure has not been received. A good example is shown in the statement in Appendix B in respect of catalogues, for though the stock of these at the end of the year is really of no value should the business come to an end, yet so long as it is continuing they are of *some* value and will be used in the following period to produce business. It is only equitable that the period in which they are acquired should bear only its proper proportion of their cost if the real profit is to be shown in our accounts.

The principle of this is important and can be applied in many cases. Thus while the cost of advertising to keep the name of the business or its commodity in the minds of the public is a selling expense, and the cost should be charged to the period in which the publicity occurs, yet, when a special advertising campaign is instituted to place a *new* commodity upon the market, the full benefit of such expenditure is not obtained immediately and it is quite a legitimate procedure to carry forward some portion of the expense and charge it against other periods which will also benefit from the campaign. The amount so carried forward is known as *Deferred Revenue Expenditure* and will appear in the Balance Sheet until charged against revenue.

Heavy expenditure is sometimes incurred in replanning or reorganizing a factory, or in altering or adapting plant to changed conditions, and while such expenditure is not strictly of a capital nature, and only indirectly affects the earning capacity of the business, yet some portion of such expenditure may justifiably be carried forward on the ground that any benefit is of a continuing nature and hence it is unfair to charge the whole cost to any one period. It is better, however, to charge it against profits over a very short period of time.

In the case of limited companies heavy expenditure is incurred in connection with their formation, while the establishment of a new department, or commencement of a new branch, may entail material expense before business can be done. Such expenses can be treated as Deferred Revenue Expenditure, but in all cases of this nature the amount which is written off should not be treated as part of the normal expenses of doing business and hence affect the cost, but be charged against the profits of the trading as special items at the end of the Revenue Statement.

5. ANALYSIS OF EXPENSES

While expenses should be grouped in a manner which is convenient to the nature of the businees, yet the consolidation of expense items should not be carried to such a degree that the details are obscured, as otherwise the significance of the influence which they have on the results of the business will be lost. The more useful detail submitted to the management the greater the control which can be exercised; and so, while the Revenue Statement may condense the expenses, separate schedules should be submitted to the management showing the percentages of individual items to the whole. For example, an omnibus item of "Postages, Telegrams, Telephones, and Stationery" may be advisable in the Revenue Statement, but a supplementary statement should show the amount spent on each item in the group, so that the management may see the growth or otherwise of the compound items, for telegrams may be used when the same result could be obtained by a letter or by telephone at a lower cost. Many expenses do not decline when gross income is reduced, or, if they do fall, the reduction is not made at the same time or in the same ratio.

Profits can be increased either by (*a*) increasing gross income, or (*b*) reducing expenses. Either or both may be operating at the same time. The former method is difficult because of outside competition and may entail considerable additional expense such as advertising, commission, etc., which may result in the actual return being reduced in proportion to the extra capital required to finance the increased turnover. Internal expenses are under the control of the management and any reduction should bring an immediate improvement in the earning capacity of the business. It should be pointed out, however, that any reduction in expenses must not be accompanied by a reduction in efficiency or of the service given to the customer as this may in turn lead to a diminution of the gross income.

Economy does not necessarily mean the reduction in expenditure, but the lowest possible expenditure for the efficient working of the business. In any case there is a definite point below which expenses cannot be reduced and at that point the only salvation is an increase in sales, and, as pointed out above, expenses may increase considerably.

When business generally is poor there is a tendency to reduce items like repairs and maintenance to the minimum, but this generally results in a much heavier expenditure at a later date and is not real economy in the long run. The cash position of a business may, however, make this course necessary in some cases.

It must not be overlooked that the administration and general management expenses are largely made up of expenses which cannot be directly apportioned either to producing, selling, or distributing activities. Such expenses are usually for the benefit of all sections of the business. It is of great importance to know that the cost of supervising the establishment is in proper relation to the cost of manufacture, the selling expenses, and the amount of sales.

In some cases these general management expenses can be sectionalized to give further details, e.g. the Accounts Department expenses, those of the secretary's section, etc. The more detail shown the greater the degree of control which can be obtained.

6. MANAGEMENT SALARIES AND DIRECTORS' FEES

A company being a legal but not a physical personality cannot manage its own affairs, and hence directors are appointed to administer it and direct its operations. They, in turn, often appoint either one or more of their number as managing director or directors, or alternatively employ a

whole-time manager to put their policies into operation and to take charge, under their general direction, of the activities and detailed work of the company. The fees of the directors and the salaries of the managing directors or managers are expenses which are correctly chargeable to the administration and general management of the business.

It might be pointed out that when times are bad and business is difficult the task of management is much harder, and the responsibilities of directors are decidedly greater, a fact which seems to be overlooked by some shareholders who, aggrieved through the absence or smallness of dividends, demand that directors should forgo their fees. Such a demand is most unfair, provided that the directors have carried out their duties in a proper manner, and, moreover, is wrong in principle as when such fees are not paid the true costs of management are not disclosed. In any case the amount involved is usually quite small in proportion to the volume of business done or capital involved and the shareholders will not benefit at all, though the non-payment of the fees may increase the cash at the disposal of the business for the time being.

When the business is owned by one man, or by two or more partners, each of whom shares in the management, the need for a manager disappears, and one often finds that the proprietors are content to take their share of the profit arrived at without considering the services they personally have rendered to the business in the earning of its revenue. Every owner actively engaged in his business is entitled to an adequate reward for his labour, and if this be not charged as an expense, the true profit-earning capacity of the business is not disclosed. Unless the business yields for its owner a net return exceeding the salary he could reasonably expect to receive if he were performing the same duty for someone else, it is evident that he is no better off financially

than he would be as a salaried employee, and has in addition to run the risks common to all businesses of losing some or all of his capital. For this risk the proprietor should receive some additional return. If remuneration of the owner or owners be not charged, then the total cost of such business will appear to be lower than that of a company which has to pay for its management. There are naturally cases where a man could not obtain employment, and in such circumstances this argument would not apply or would have to be modified, as the particular individual would be content with a smaller return. It must not, however, be overlooked that the profits in such a case appear larger in proportion to the capital employed, though the return to the owner may be less than that which he could get as salary elsewhere. This is normally not a sound economic proposition from such an owner's point of view.

7. INTEREST ON CAPITAL

Perhaps the question upon which there is the greatest difference of opinion is whether interest on the capital used in the business should be taken into account when arriving at the profits on the trading activities of the business. It should be appreciated that whether or not interest on capital be charged, the actual return to the proprietors will be exactly the same, for if they get interest on capital the profit will be decreased by the amount of such interest. The real point is that no business can be regarded as truly profitable unless it yields to the proprietor not only a salary for the time and services rendered, but also interest on his investment. If the money used in financing the business had been borrowed instead of having been supplied by the proprietor, interest would have to be paid and hence the actual expenses would have been higher. Interest is really the cost of capital, just as wages are the cost of labour.

Interest upon capital invested seems therefore to be as legitimate a charge against the business as the salary of an active owner. It is true neither item is an actual cost in the sense that it is a fixed charge that the business must pay in order to remain "solvent." Neither represents an obligation to outsiders. On the other hand, if they are not covered by the profit made, the owner had better not be in business for himself, and his position would be improved if he accepted a salary for his services and invested his capital to earn him interest. Both interest and salary must be met before the owner obtains any special income in return for assuming the risks and hazards to which all businesses are subject.

It is sometimes suggested that, as interest varies with the risk, it might be difficult to make an estimate as to the proper rate of interest to be allowed in a business which is subject to a high degree of hazard. This objection arises from a misunderstanding of the point at issue. Interest would properly be computed not at the rate at which it would be possible to borrow for use in and secured in such business, but rather at the rate which it would be possible for the owner to obtain for his capital if invested in a reasonably safe security instead of being used in his own business.

The proprietor in a sense guarantees the payment of all the expenses of the business. He undertakes to pay for the raw material or goods handled, to pay rent for his premises, to meet the salaries and wages of the employees, and to be responsible for all charges relating to the conduct of the affairs of his business. No one, however, guarantees him any return. He takes a chance on this, instead of lending his capital and getting a fixed return from someone else who then assumes all the risks. He undertakes to pay other persons concerned sums decided upon by agreement, and to take what remains. If there be no residue he gets no return whatever, and if the expenses exceed the income

from his operations he loses some, at least, of the capital he has placed at the disposal of the business. It will thus be seen that from an economic point of view, wages, interest, and profits may be regarded as separate matters which arise from different sources. Wages are the payment for work done, interest the reward for the use of capital, profits are the remuneration for risks assumed.

Desirable though it may be to charge interest in arriving at the true cost of doing business, it is not always advisable actually to show it in accounts which are available to the public. If, for example, large profits are disclosed and the account shows that interest on capital has been charged, competition may arise, whereas if interest had actually been taken into account but not specifically stated, the position is obscured and other parties have not the same incentive to compete. Non-disclosure of such an item when charged makes comparison of costs difficult, if not impossible. Again, in companies there are often several classes of stocks or shares issued which carry different rates of interest, some, or all, of which might differ from the rate charged in arriving at the costs, and such a procedure would not infrequently produce undesirable confusion in the minds of owners of the securities.

In dealing with this question of interest we must also take into consideration the amount of capital involved. From the point of view of costs we should only take account of the amount of capital sunk in assets which are necessary for the production of revenue, e.g. in plant, machinery, etc. Many businesses own what are called *Intangible Assets*, such as Goodwill, Patents, Trade-marks, etc., but these, as will be seen later, are really a form of capitalized earning power, and hence should not be treated as capital on which interest should be charged.

If interest be charged, it must be apportioned over the various sections, e.g. that in respect of capital sunk in

plant, etc., added to the manufacturing costs, that on lorries and vans to distribution, interest on sums paid for office furniture and machines to general expenses.

8. RENT

It will be seen that in the statement in Appendix B, there is an item of *Rent Received* included as part of the Secondary Income, but that no charge appears for Rent Paid. This would be due to the fact that the business in question owns its own land and buildings, part of which had been sublet.

The arguments which have been used with regard to charging the owner's salary and interest against costs of production would also apply to the rent of any land and buildings owned, and therefore it would be advisable to charge the economic rent of all premises used as one of the costs of the goods. This item, however, differs from that of salaries to proprietors and interest on capital in that nothing is paid away in respect of rent, as the manufacturing, distribution, and office sections would be charged with their due proportions while the secondary income would be credited, but as is clearly seen from the statement this secondary income affects only the amount of profit, and not the costs of doing business. It has, therefore, no effect on the actual net earnings, but is rightly treated as an essential expenditure in connection with the running of the business. When rent is charged for premises owned, no interest is, of course, charged on the capital invested in such property. Any rents received from property sublet should in such cases be credited against the rent charged. Rent, whether paid or charged, should be apportioned so that the factory is actually treated as having had to bear an amount for rent. Office rent would be charged to general expenses while stabling or garage rent would usually be a distribution cost.

9. SECONDARY INCOME

It cannot be emphasized too often that all Revenue Statements should aim at showing as clearly as possible the actual profits arising from the normal trading operations of a company; and hence, any income derived from other sources, though increasing the amount of profit available for division amongst the proprietors, should be treated as additional to the main activities.

(*a*) Income from Investments

Such secondary income can arise in various ways, e.g. the dividends from investments held outside the business, interest on loans made, the excess from Specific Reserves made at some earlier date and no longer required, etc., but as to whether income is primary or secondary depends upon the nature of the business; thus the income from investments would be a primary source of income to an investment company, but, as stated above, a secondary source to a manufacturing or trading company. In the latter case investments may arise in one of two ways, viz. (*a*) by an investment of moneys which are a surplus to the financial needs of the business either permanently or temporarily; or (*b*) investments in other companies, whether subsidiary or not, in order to obtain some trading advantage, e.g. better supply of goods, or a ready market for one's products, and not so much with the object of earning income, as the return is secured indirectly.

Investments falling into the first class will usually be found to be of a gilt-edged type, and hence if the amount of capital so used is permanently in excess of that normally required to finance the business, the yield on such investments will be lower than will be earned by the capital used in the business. This will result in the return to the proprietors being lower than the profit-earning capacity of the

business warrants. Supposing a capital of £100,000 has been raised of which £90,000 is used in the finance of the business operations and earns profits of, say, £13,500 or 15 per cent while the remaining £10,000 is invested in securities yielding, say, 5 per cent or £500—the total profit is £14,000 or 14 per cent on the capital of the business, and a reduction of 1 per cent in average earning power is a material fall. In such cases it would probably be advisable to return part of the capital to the proprietors. If there be a temporary business depression, funds tend to become redundant for the time being and it is then advisable to utilize them in making investments and so produce some income. Such investments should be of a gilt-edged nature as then the risk of capital loss on realization is small, a very important factor in temporary investment, and there is always a ready market for them.

In some cases investments may be held in respect of certain funds which have been created, e.g. a fund for replacing assets, or one for discharging a liability and in respect of which investments have been made to ensure the ability to meet the need when it arises. In such cases any income obtained from such investments should be taken to the fund itself and not to revenue, as the basis of such funds is usually that they be accumulated at compound interest.

(b) Special Profits or Income

Occasionally profits are made quite apart from those which arise in the normal course of trading, such as would occur if some of the fixed assets were sold at more than the value at which they stand in the books. Such profit is really a capital profit, and in the case of a company should only be distributed to the shareholders provided—

(a) The Articles of Association permit, or an Extra-

ordinary Resolution to distribute it is passed by the members.

(*b*) The profit is a cash one.

(*c*) All other assets are revalued.

(*d*) A surplus remains after the revaluation.

The amount to be distributed cannot exceed the surplus referred to in (*d*).[1]

The distinction between fixed and circulating assets is therefore very important indeed. Investments of a trade nature are fixed assets as they are acquired in order to earn revenue in much the same way as plant, though, as will be seen later, they will be sold should the trading advantage disappear.

It is usual for any profits arising on the sale of such fixed assets in the case of a company to be transferred to a Capital Reserve Account and not to Profit and Loss Account. Any losses which might occur on the realization of any other fixed asset can be charged against such Reserve.

Profits of an extraordinary nature may sometimes arise on trading transactions or on the sale of holdings of stocks and shares representing the temporary utilization of funds which cannot for the moment be used advantageously in the business. If these are treated as profit, and there is no reason why they should not be, the attention of the shareholders should be drawn to the fact that the profit is not solely obtained from normal trading activities, as otherwise they are apt to get a wrong impression of the profit-earning capacity. It is for this and similar reasons that companies sometimes declare a dividend payable out of the trading profits and a bonus out of the special profits, thus intimating

[1] See *Lubbock* v. *The British Bank of South America*, [1892] 2 Ch. 198; *The New Trinidad Lake Asphalt Co. Ltd.*, [1901] 1 Ch. 208; *Mills* v. *Northern Railway of Buenos Aires Co.*, [1870] 5 Ch. App. 621, 631; etc. Also Spicer and Pegler's *Practical Auditing* under chapter "Divisible Profits and Dividends."

to the shareholders that the directors expect and hope to maintain the dividend in the future but that the "bonus" is a special distribution which is unlikely to be repeated.

Sole traders and partners are not placed under any necessity to distinguish between capital and revenue profits, and from their intimate acquaintance with the business should be aware of the exact position, but even so it is always advisable for any profits of an unusual nature to be clearly shown and their nature indicated, as they do not in themselves affect the profit-earning capacity of the business.

10. SUPPLEMENTARY LOSSES

Just as there may be secondary income, so losses of an unusual nature, or which do not actually arise from trading, will sometimes be incurred, such as large repairs to a fixed asset due to some accident, installation of new drainage, etc., the cost of which cannot be charged conveniently to the period in which it was incurred. Thus, if there is a loss from a fire or burglary or other disaster and such loss is not wholly made good by insurance, the actual loss sustained should not affect the position arising from the trading. Losses on the sale of investments made from surplus funds should be treated in a like manner, as should any special losses which might arise on the replacement of an asset owing to it having lost its efficiency through some new invention or discovery. Deferred Revenue Expenditure which is of a special and non-recurring nature should also be charged as a supplementary loss.

All such losses affect the amount of profit available for division among the proprietors, but it cannot be too strongly emphasized that they do not alter in any way the *profit-earning capacity* of the business, and it is on this latter that the general position and welfare of the business depends, rather than on the amount of the profit remaining available for dividends.

11. PROFITS OF SUBSIDIARY COMPANIES

An important feature in the modern development of joint-stock companies is that of subsidiary companies in which a company commonly called a "holding" or "parent" company holds a majority interest. The Companies Act, 1929 (Sect. 127), defines a holding company as one where such company holds shares in another either directly or indirectly and—

(*a*) the amount of shares held is more than 50 per cent of the issued share capital of the other company, or—

(*b*) the share holding is such as to entitle the company to more than 50 per cent of the voting power in the other company, or—

(*c*) the company has power directly or indirectly to appoint the majority of the directors, or persons occupying the position of directors, of that other company.

Provided that the above does not include—

(*a*) a power vested in a company by virtue only of the provisions of a Debenture Trust Deed or by virtue of shares issued for the purpose in pursuance of those provisions, or—

(*b*) the holding of shares in another company as security only, where the ordinary business of the company includes the lending of money.

Any dividends declared out of the profits of the subsidiary companies would obviously form a part of the income of the holding concern. If the parent organization were formed with the sole object of holding shares in subsidiaries, such income would be primary income, but if, as often happens, the company is itself a trading concern and in addition controls the activities of others engaged in the same or complementary lines of business, these dividends would form part of the secondary income. For the convenience

of the management, but not for publication, a Consolidated Statement of Profit is sometimes prepared and this is designed to show the total profits of the whole undertaking. Such a form is illustrated in the following statement—

STATEMENT "E"

THE XY COMPANY LIMITED

Consolidated Profit and Loss Statement for Year ended 31st December, 1937

	XY Co. Ltd.	Subsidiary A Co.	Subsidiary B Co.	Subsidiary C Co.	Subsidiary D Co.	Total
	£	£	£	£	£	£
Sales	180,000	21,000	36,000	24,000	60,000	321,000
Cost of Goods Sold	127,500	14,000	24,500	15,750	38,500	220,250
Gross Profit	52,500	7,000	11,500	8,250	21,500	100,750
Selling Expenses	10,200	1,350	2,500	4,000	2,250	20,300
	42,300	5,650	9,000	4,250	19,250	80,450
Distributing Expenses	4,750	500	1,000	500	2,800	9,550
Selling Profit	37,550	5,150	8,000	3,750	16,450	70,900
General Expenses	16,860	2,050	3,250	1,250	5,000	28,410
Net Profit on Trading	20,690	3,100	4,750	2,500	11,450	42,490
Additional Income[1]	600[1]	150	—	200	250	1,200
	21,290	3,250	4,750	2,700	11,700	43,690
Other Expenses or Losses	—	200	—	150	—	350
Net Income	21,290	3,050	4,750	2,550	11,700	43,340
Profit brought forward	4,750	250	100	400	2,100	7,600
Available Profit	£26,040	£3,300	£4,850	£2,950	£13,800	£50,940

This statement would apply only when the whole of the shares in the subsidiary companies were held by the parent, but if, as sometimes happens, the parent company only has a controlling interest, adjustments must be made in the profits of the subsidiaries as obviously a part of such profits belong to the minority shareholders. Thus, supposing the XY Company holds all the shares of Subsidiaries A and C, 60 per cent of the shares of B, and 75 per cent of those of

[1] In the case of the parent company, this item of additional income does not include the dividends from the subsidiaries.

Company D, the position would then be as in the following statement which is a continuation of that given above—

STATEMENT "F"

	XY Co.	A Co.	B Co.	C Co.	D Co.	Total
	£	£	£	£	£	£
Available Profit as above	26,040	3,300	4,850	2,950	13,800	50,940
Less Proportion of Profits due to Minority Shareholders:						
B Co. 40%			1,940			
D Co. 25%					3,450	5,390
Total Profits to XY Co.	£26,040	£3,300	£2,910	£2,950	£10,350	£45,550

In both these cases quoted it should be appreciated that we get the profit available from the whole of the companies in the group, but, so far as the holding company is concerned, the total available profit shown in the statements is not available for the declaration of dividends, as each of the subsidiary companies will carry forward some portion of its profit and thus only the actual dividends received by the holding company from them will be added to its own profits. Let us assume that the following dividends are paid—

	£
A Co.	3,000
B Co.	4,500
C Co.	2,750
D Co.	12,500

then if the whole of the shares of these companies belong to the XY Co. we shall get the following position as supplementary to Statement "E"—

STATEMENT "G"

	XY Co.	A Co.	B Co.	C Co.	D Co.
	£	£	£	£	£
Profit as per Statement	26,040	3,300	4,850	2,950	13,800
Dividends received by XY from—					
A Co.	3,000	3,000			
B Co.	4,500		4,500		
C Co.	2,750			2,750	
D Co.	12,500				12,500
Amount available for Dividends to XY's Shareholders	£48,790				
Balance carried forward		£300	£350	£200	£1,300

In the case where the parent company does not hold the whole of the shares the supplementary statement would have to take the following form—

"STATEMENT "H"

	XY Co.	A Co.	B Co.	C Co.	D Co.
	£	£	£	£	£
Profits as per Statement	26,040	3,300	4,850	2,950	13,800
Dividend Paid to Minority Shareholders—					
B Co. 40% of £4,500			1,800		
D Co. 25% of £12,500					3,125
	26,040	3,300	3,050	2,950	10,675
Dividend received by XY Co. from—					
A Co.	3,000	3,000			
B Co.	2,700		2,700		
C Co.	2,750			2,750	
D Co.	9,375				9,375
Amount available for Dividend to XY Co.	£43,865				
Balance carried forward		£300	£350	£200	£1,300

12. DIVISIBLE PROFITS

The Revenue Statement as per Appendix "B" shows the actual amount of profit made during the year, after charging all expenses in connection with the business, and, since in the case under review there are no extraordinary profits or losses, the result is the amount upon which the position of the business may be studied, as it shows the surplus remaining after meeting all the outgoings. In the case of a company which had issued Debentures the holders of such Debentures could assess the value of their holdings, for it is generally assumed that the net income should amount to at least twice the sum necessary to pay their interest. The net income from the statement would be left after such interest is charged. Obviously a decline in net income means that the proprietors will receive less income from this source, and, in the case of a company, a reduction in the dividends paid to shareholders also means that the market value of

their shares will fall. Many companies, recognizing that business results do fluctuate materially, however good the management may be, set aside in prosperous times certain proportions of their net income as a Dividend Equalization Reserve and such Reserve may be utilized in years when results are not so satisfactory to augment the income of such year and so maintain dividends and also the market value of the shares.

It must not, however, be overlooked that any sums so drawn from the business will reduce the working capital at the time and may make its financial position less satisfactory, and hence when a company forms such an Equalization Reserve it is always advisable for the sum represented by this Reserve to be invested outside the business so that the funds available for the purchase of material and paying the numerous costs of the business are not in any way reduced when the fund has to be drawn upon. Few companies distribute the whole of their profits, although any Equalization Reserve or such balance as may be carried forward comprises profits available for distribution; but it is essential that a distinction be made between the profit made during a trading period and the profit which is available for dividends. It will be recalled that it was upon this point that the prosecution in the *Royal Mail Steam Packet Company* case turned, and much of the trouble was undoubtedly caused by the difference between the "earned" and "divisible" profits of a particular period not being clearly distinguished.

The Revenue Statement should show only the profit made on the trading operations and hence a supplementary statement or account is necessary to show not only the "divisible" profit, but also what is done with such profits. This account is more correctly described as a "Profit and Loss Appropriation Account." It will be credited with any balance of profit brought forward from the previous period

and with the profits for the year, together with any profits of a capital nature, though these are not, as already shown, necessarily available for distribution and if brought in should be shown on the debit as transferred to the Capital Reserve. If any Reserves exist which have been made previously in respect of expected liabilities (e.g. for income tax, the exact amount of which is unknown) and which Reserves proved to be in excess of the actual amount when ascertained, or they are not eventually required, they should also be credited in this account. Any transfer made from the General Reserve in order that dividends can be maintained will be treated in a like manner and then the total of the credit side will show the total profits available for distribution. Against such divisible profit will be shown income tax, which is legally and actually the share of the profit taken by the Government. (Income tax should be regarded as an appropriation of profit and not an expense of

THE AD COMPANY LIMITED

Profit and Loss Appropriation Account for Year ended 31st December, 19..

Dr.	£	£	*Cr.*	£
To Income Tax		70,000	By Balance brought forward from previous year	43,090
„ Transferred to Clerks' Widows' Pension Fund		5,000	„ Net Profit for year after charging all Expenses and provision for Bad and Doubtful Debts	278,681
„ Transferred to Reserve Fund		31,250		
„ Balance appropriated as follows—				
Interim Dividend paid last July:				
Preference	6,000			
Ordinary	43,125			
Dividend for the final half-year to be paid 1st February:				
Preference	6,000			
Ordinary	60,000			
Bonus of 1s. per Share, free of tax	40,000			
	155,125			
Carried forward	60,396			
		215,521		
		£321,771		£321,771

doing business.) Any allocations to the General Reserve as well as actual distributions of dividend will then be charged. The balance will then show the management what profit is left, and on the amount so disclosed they can make their decisions regarding the further distributions and the balance to be carried forward to the next year.

The table on page 132 is an actual example of such an account.

Such a statement makes the position quite clear, and there can be no misunderstanding as to what are the profits. In this case since the balance carried forward at the end of the year exceeds that brought in, the whole of the actual profit made has not been dealt with even after allowing for the transfer to Reserve. In this case the actual working capital of the company in question has been increased to the extent of profits retained within the business and such increase is ascertained as follows—

	£	£
Transfer to Reserve		31,250
Profits carried forward	60,396	
Less Profits brought forward	43,090	
		17,306
Increase in Working Capital		£48,556

It has been assumed that the £5000 transferred to the Pensions Fund will be invested outside the business, but, if allowed to remain in the business, the total must be increased by this amount. It is not always realized that, when profits are made, the actual net assets of the business are increased and hence the working capital. Conversely, when a loss is made, net assets decrease and the working capital is reduced and, if losses continually recur, the position becomes serious.

It must also be appreciated that profits are not necessarily represented by cash in the bank, for quite apart from the fact that payment will not in many cases have been

received in respect of all sales made or services rendered and an item of debtors consequently appears in the Balance Sheet, it is not customary for business men when they do receive payment to set aside that portion of the sum received which represents profits. The total proceeds collected are paid into the bank and used to pay for raw material, discharge wages, and meet the numerous expenses of the business itself, or even to acquire some fixed assets to enable the business to increase its earnings.

It frequently happens that an expanding business which is showing considerable profits may not possess sufficient cash to enable a distribution of profit to be made, unless money is borrowed. Borrowing to pay a dividend is not necessarily a wise proceeding, for if the additional assets acquired out of the profit made are either fixed ones, e.g. additional plant, or represented by a larger stock of goods to enable a greater volume of business to be done, there is no real possibility of repaying the loan except by raising additional capital or curtailing future extensions. If, however, the shortage of cash be due to carrying a larger stock than usual owing to some very advantageous cash purchase, which goods are to be the subject of a special sale at prices ensuring the rapid disposal of the goods, then borrowing may be justified, as there is no intention of permanently carrying the additional stock and the cash resources will be replenished when the sales take place.

13. PROFIT-EARNING CAPACITY

The results of the operations of any one year are no real guide to the profit-earning capacity of a business. The moving average of a selected number of periods is, as already explained, a much more reliable guide to the trend, and when the period selected for the computation of such moving average includes periods of good and bad trading which are due to outside influences rather than internal

management, the trend is a very reliable standard. If any change in the method of calculating profits occurs, care must of course be taken to see that the figures for all the periods covered are adjusted so that the same factors are taken into consideration. If the profits are expressed as a percentage of the capital it is very necessary to take into account the *actual working capital* involved and not merely the capital as shown in the Capital Accounts. Thus in the case of a company the capital used would, all other things being equal, be composed of the actual capital raised for financing the business, plus any general reserve created out of past profits, and also the undivided balance of profit carried forward for the equalization of dividends. Similarly in the case of partnerships it is often found that the Capital Accounts of the partners show a constant figure, but any profits not drawn out by them remain to the credit of their current account, and the balances of such accounts form part of the working capital of the business.

Let us examine the following statement for five years—

Year	Paid-up Capital	Reserves	Actual Profits Earned	Dividend	Balance of Profit Carried Forward at End of Year
	£	£	£		£
1 . .	100,000	50,000	20,000[1]		5,000
2 . .	100,000	60,000	21,500	21%	5,500
3 . .	100,000	60,000	22,000	21½%	6,000
4 . .	100,000	60,000	21,750	21½%	6,250
5 . .	100,000	60,000	22,250	22%	6,500
Average .	£100,000	£58,000	£21,500		£5,850

[1] It is assumed that £10,000 has been transferred to Reserve and £5000 used to write off Preliminary Expenses.

The average working capital employed—

	£
Average Capital	100,000
,, Reserve	58,000
,, Profits held undistributed . .	5,850
Total	£163,850

The average profits for the period show 13·12 per cent of the average working capital employed, whereas, if we take the average profits as against the Capital Account only, we should get a percentage of 21·5, a very different result. It is therefore customary for statistical tables to show the percentage of profits to actual capital employed and this is known as the "Rate of Profit Earned."

In the case given, the rate of earning for each year could be shown as follows—

Year	Paid-up Capital	Reserve at Beginning of Year	Balance of Profit on 1st Jan.	Total Interest of Proprietors Financing Business during Year	Profits for Year	Rate of Profit Earned	Rate of Dividend Paid
	£	£	£	£	£	%	%
1 .	100,000	50,000	—	150,000	20,000	13·33	—
2 .	100,000	60,000	5,000	165,000	21,500	13·03	21
3 .	100,000	60,000	5,500	165,500	22,000	13·29	21½
4 .	100,000	60,000	6,000	166,000	21,750	13·10	21½
5 .	100,000	60,000	6,250	166,250	22,250	13·38	22

The actual working capital each year consists of (*a*) the paid-up capital, (*b*) the Reserve at the beginning of the year, and (*c*) any undivided profit carried forward.

In the case of companies, the dividends paid do not show the real profit-earning capacity for (*a*) such amount as is paid in dividends is the amount remaining after bringing in any balance of profit brought forward from the previous

year, and charging against it Income Tax and Allocations to Reserves and allowing for a balance to be still held for equalizing dividends; and (*b*) such dividends are paid in respect of the legal capital only. Thus we see that the rates of dividends in the table above are almost the same as the rate of profit on the Capital Account. To take the last year we get the following figures—

$$\text{Rate of Profit earned} = \frac{22{,}250}{166{,}250} \times 100 = 13{\cdot}38\% \text{ approx.}$$

Rate of Profit on
Capital Account $= 22{\cdot}25\%$,,
Rate of Dividends $= 22\%$.

Thus, when criticism is directed at the high rate of dividend paid and statements made that there is some form of exploitation of the public, the real rate of profit earned should be ascertained, when it will quite frequently be found that, while the dividend appears to be large, the rate of profit actually earned may be below that obtained by competitive businesses.

The profit-earning capacity is of great importance when a business is being sold as a "going concern," for, as will be shown later, the real value of many assets depends upon it, and hence it must be seen that in the period selected in order to ascertain this profit-earning capacity the accounts are drafted on a uniform basis and the various percentages already indicated calculated and tabled. This may be done in the manner shown in Statement "I" where the totals of the various groups of expenditure are shown, and thus the general position indicated. Such a statement can be supported by detailed schedules of the costs and expenses so that their ratios can also be studied. This could take the form as shown on page 138.

It should be seen whether the ratio of gross profit to sales is constant. If it is subject to much variation, the cause or

STATEMENT "I"

THE XY MANUFACTURING COMPANY LIMITED

Comparative Statement of Profit and Loss for Three Years ending 31st December, 1937

	Year Ended			Percentages			Remarks
	31st Dec. 1935	31st Dec. 1936	31st Dec. 1937	1935	1936	1937	
	£	£	£				
Sales	160,000	165,000	180,000				
Cost of Goods Sold	112,000	110,000	127,500	70	66·6	70·83	% on Sales
Gross Profit	48,000	55,000	52,500	30	33·3	29·17	,, ,,
Selling Expenses	9,600	9,487	10,200	6	5·75	5·66	,, ,,
	38,400	45,513	42,300				
Distributing Expenses	3,200	3,070	4,750	2	1·86	2·64	,, ,,
Selling Profit	35,200	42,443	37,550	22	25·72	20·87	,, ,,
General Expenses[1]	16,000	15,675	16,860	10	9·5	9·36	,, ,,
Net Profit on Trading	19,200	26,768	20,690	12	16·22	11·49	,, ,,
Additional Income	510	515	600	2·6	1·9	2·81	% of Net Income
	19,710	27,283	21,290				
Other Expenses or Losses	210	450	—	1·08	1·7	—	,, ,,
Net Income	£19,500	£26,833	£21,290				

causes of such variation must be found, seeing that if it be not due to changes in the cost of material, the rate of wages, or alterations in other manufacturing expenses which are not offset by a change in the selling price, it will in all probability be due to errors in the valuation of stock or even to a deliberate inflation or reduction of this value. An increase in the rate of gross profit needs even more careful attention than when the rate is falling. The stocks in hand at the close of each period should be compared and it should be seen whether the stocks held tend to rise or fall in relation to sales. If there be a considerable increase in the stock held and no corresponding increase in the trade done, there may be inflation of values. The amount of the sales of each period should be compared to ascertain the progress or

[1] Discounts received are treated as a deduction from General Expenses.

otherwise of the business, and the cause of any abnormal fluctuations should be ascertained.

Comparison should also be made of the various classes of expenditure and their ratios, and this will show whether there have been any relatively large increases or decreases between the expenses of one period as compared with another, or whether any expenses are of a non-recurring or infrequent type. Such comparisons are always useful particularly in the light of experience of similar types of business. More than one fraud has been discovered by a comparison of the results of a particular business with those of a similar business.

If the business is being sold to a company the expenses and charges of the latter will probably be different in many ways from those of a sole trader or partner, and though we may be given the true profit earned by the former, we must make certain adjustments if we are to get what they would be from the point of view of the company. It will usually be found necessary to add the following items—

(1) Interest on Proprietors' Capital and Current Accounts where these have been charged.

(2) Proprietors' salaries when they are different from the remuneration of the manager or managers of the company.

(3) Interest on loans or overdraft, if any, unless they are going to be continued by the company, otherwise it is assumed that the company will be provided with sufficient working capital, in which case such charges will not be incurred.

(4) Discount on purchases in so far as the proprietors have not had sufficient working capital to avail themselves of all the discounts offered to them, provided that the funds of the company are large enough to take advantage of all discounts possible.

(5) Exceptional losses, e.g. those arising from defalcations; losses through insufficient insurance—although in such cases the cost of full insurance should then be charged; costs and damages of legal actions, etc.

(6) Capital losses such as those on the sale of investments or of fixed assets.

(7) Any additions or improvements of a capital nature which have been charged to Profit and Loss.

(8) Any excessive Reserves such as those for bad debts or contingencies.

The following items however would have to be deducted—

(1) Income from assets not taken over by the company.

(2) Exceptional profits, such as compensation for compulsory removal, etc.

(3) Capital profits, such as profits on sale of investments or of fixed assets.

(4) Management salaries where there have been none previously charged.

(5) Directors' fees.

(6) Audit fees where no audit has been conducted in the past.

It is also customary for the amounts charged for depreciation to be written back on the ground that the company may adopt a different basis, or calculate it on the new values at which the assets are taken over, but the statement must clearly show what has been done. The following is a form of Accountant's Certificate frequently met with in such cases—

"We, the undersigned, the Auditors of the XY Co. Ltd., hereby certify that the Net Profits for the three years ended .... 193.. (after charging all expenses of administration, but before providing for Directors' Fees,

Income Tax, Depreciation of Fixtures and Fittings and amortization for leasehold premises and after making the adjustments which in our opinion are necessary) were as under . . ."

14. SUMMARY

The following is a summary of the general principles governing the preparation of Revenue Accounts or Statements—

(1) Income must not be anticipated, but provision must be made for possible and probable expenses or losses. For example, care must be taken in valuing stock-in-trade correctly so as not to take into account any increases in value due to changing prices not yet realized. Provision must also be made for depreciation of all assets used in earning profit.

(2) All accrued income and expenses must be brought in and shown at their proper amounts, thus we must take care to include all such items as accrued wages, rates, rent, and interest both receivable and payable.

(3) All expenses paid or income received which are not applicable to the period covered by the accounts must be excluded, e.g. prepaid insurance, rents paid in advance, etc.

(4) All items of income and expenses must be shown at their gross value, and not offset one against another, e.g. discount allowed and received should be shown separately and not merely by means of a balance. Similarly interest received should be shown as a separate item, even though interest is also paid.

CHAPTER VII

BALANCE SHEETS

1. DEFINITION

A Balance Sheet has been defined as "a classified summary of all the balances remaining in a set of books after those relating to Trading and Profit and Loss have been collected into one account, so arranged as to show the assets and debit balances upon one side, and the liabilities and credit balances upon the other. It represents the culmination of the system of book-keeping, and should be a document setting out the true position of the business in such a manner as may be easily understood by men of business intelligence."[1]

The terms "assets and debit balances" and "liabilities and credit balances" are important, as they at once indicate that some things are included which are neither assets nor liabilities. These will be dealt with in due course. Though the Balance Sheet is really a statement and not an account, it is, however, not strictly correct to say that it is a "Statement of Assets and Liabilities."

In this country there is no statutory form which the Balance Sheets of mercantile trading concerns should take, nor does the law require a business other than that owned by a company to prepare one. It is a very foolish business man who does not take stock of his position from time to time and this can best be done by preparing one. As has

[1] *Practical Auditing*, by Spicer and Pegler.

already been indicated, certain companies, e.g. railway, public utility, and insurance companies, must present their Balance Sheets in certain prescribed forms. The Companies Act, 1929, does, however, set out certain information which must be given by all companies when presenting their accounts to their shareholders.

In England it is customary to show the liabilities and credit balances on the left-hand side of the Balance Sheet and the assets and debit balances upon the other, thus the items appear in the Balance Sheet upon the opposite side to that on which they appear in the Ledger Accounts. On the Continent of Europe as well as in the United States of America, these ledger balances are listed in the Balance Sheet upon the same side as they appear in the ledger, and hence when compared with an English statement the sides are reversed, but the principle which is involved in their construction and preparation is nevertheless the same.

2. FUNCTIONS OF A BALANCE SHEET

"The object of a Balance Sheet is to present to interested parties a statement of the affairs of the business in such a form that they can gauge its financial stability and assure themselves that their money is reasonably safe. The interested parties are—

(1) The creditors of the business, who either made loans which are still outstanding, or supplied goods and services for which they have not yet been paid. This class is interested in seeing whether they are likely to receive payment when the debt matures.

(2) The proprietors, whose capital is invested in the business and who are desirous of knowing that their money is not being wasted, and in seeing how the funds they have supplied are being used.

(3) The employees of the firm, whose future welfare

depends upon the position of the business. Their interest is of an indirect nature, but is nevertheless an important one.

(4) People who are contemplating investing in, or lending money to the business or extending credit to it. The former desire to know that their money will be safe, while the latter wish to ascertain that they will be paid when their debts fall due.

In the case of partnerships and sole traders who are actively engaged in the management of their businesses, and who can easily obtain details from actual inspection of the books, the Balance Sheet is of less importance than to shareholders in a company. These latter take no part in the management of the company, know nothing of the details of the business, and are therefore only able to judge the position from the Balance Sheet presented to them just before, and considered at, the Annual General Meeting. In such cases the fullest details should be given, but as the form and details (subject to the provisions of the Companies Act, 1929) are left to the discretion of the directors, many of whom seem reluctant to give more information than the law compels them to do, many Balance Sheets, though arithmetically and technically correct, do not disclose the position in such detail as is necessary to allow the interested parties to appreciate, or even to ascertain, the true position. The lack of detail can be appreciated by perusing the following example. In the Peninsular and Oriental Steam Navigation Company's Balance Sheet as at 30th September, 1929, the following two "omnibus" items were to be seen, viz.—

Steamers, Tugs, Launches, and Payments on account of Ship Improvements	£17,226,421

and

Sundry Investments (less Loans), Cash at Bankers and in hand, and Debts owing to the Company .	£9,352,939

Thus assets totalling £26,579,360 cannot be split up to ascertain whether the financial position is favourable or not, particularly as the basis of valuation is not disclosed.

It should be noted that this company is one formed by Royal Charter and hence the provisions of the Companies Act do not apply to it, but in more recent Balance Sheets the policy of "block" items has been abandoned and details such as would be required if it had been registered under the Companies Act are now given, and thus the position is clarified. We find, *inter alia*, that the above items now appear as follows—

	£	s.	d.	£		d.
FLEET—						
Cost of Steamers . . .	28,554,184	0	0			
Less Amounts written off	12,341,191	4	1			
				16,212,992	15	11
(*Note.* Depreciation to date at 5 per cent per annum on cost of steamers would amount to £12,150,914.)						
Tugs, Launches, Lighters, etc., at cost less amounts written off				50,000	0	0
DEBTORS (including Current and Loan Accounts with Subsidiary Companies, £79,141) . .				441,607	15	4
Dividends declared and to be received from Subsidiary Companies				139,623	18	7
Cash at Bankers, and in hands of Agents and in transit				181,605	1	11

In addition, investments are classified under various headings, while the loans which have been raised on the security of some or all of them are shown separately as a liability, and it is now possible for shareholders and creditors to ascertain the liquid resources of the business. The procedure now adopted is to be commended the more in that there is no legal obligation for it to be done.

The usual argument against giving details is that valuable information is placed at the disposal of competitors, but this is a weak contention. The position disclosed in the Balance Sheet does indicate that a profit has been made but it does not show how, when, or where the profit has

arisen. The disclosure of the details of the Trading and Profit and Loss Accounts would undoubtedly be advantageous to trade competitors, and hence it is customary for a very condensed summary of these to be placed before the shareholders, the detailed statements and schedules being kept for the use of the directors and managers.

3. THE BALANCE SHEET IS A STATIC STATEMENT

As already stated, the Balance Sheet is a "static" statement, for it shows the position of a business as at a certain moment of time. It only applies to the conditions prevailing at that given moment and at no other moment of time. For example, a Balance Sheet prepared at the 31st December of any given year shows how the business stood at the close of business on that day, but directly business is resumed on the 1st January of the next year, immediately any work is done, or a transaction completed, the position changes from that disclosed. Thus, if a sale be made, the stock in hand is at once reduced, while either cash or the item of debtors is increased and the nature of some of the assets changed and presumably a profit made. Similarly, if a creditor is paid what is due to him, the cash is reduced and the liabilities fall by a like amount. It follows, therefore, that the Balance Sheet should be in the hands of interested parties as soon after the date at which it is made up as possible, and it must be admitted that many firms are very lax in this respect.

If a considerable period elapses between the date of the accounts and their presentation, criticism can only be directed to the past and not to the present, and thus is out of date and often futile. The Bank of England presents its Return weekly, on Thursdays, and this Return is really a Balance Sheet made up to the close of business on the night before. Our great joint-stock banks are all able to present their accounts to their shareholders within a month of the

close of their financial years and such accounts have been duly audited and verified.

Commercial and industrial concerns claim that the taking and valuation of stock delays the preparation of their accounts, and that auditors can only commence their work at a much later date than is possible with organizations such as banks, which have no stock-in-trade. There is something in this argument, and delays in auditing also occur as so many companies close their books on the 31st December, and the demand for the services of auditors is concentrated and all cannot be dealt with at once. If the dates for closing the books and presenting Balance Sheets could be spread over the various months of the year instead of being concentrated in certain months, such as June and December, as at present, the work of the auditors would be rendered easier and audits could be completed at an earlier date after the closing of the books than is now possible.

That the prompt presentation of accounts by trading concerns is not impossible is shown by the fact that the accounts of William Timpson, Ltd., which are reproduced on pages 234–5, made up to the 31st December, 1936, were signed on the 8th January, 1937, and considered by the shareholders at their annual meeting shortly after. As an example of delay there was the case of Gerrard Industries, Ltd., whose accounts to the 31st March, 1932, were not signed till the 31st [illegible], 1932, while the annual meeting took place on the 5th November of the same year. In seven and a half months much can have happened to the business, and the position be entirely different to that disclosed and considered. The Companies Act provides that the Shareholders' Meeting at which the accounts are submitted must be held once in every calendar year, and not more than fifteen months from the preceding one, and that the Profit and Loss Account must be made up to a date not more than nine months before the date of the annual meeting. If the

company be one which is trading abroad then the statement of profits can be made up to a date twelve months before the meeting. These provisions allow considerable latitude even in the case of companies which have foreign branches from which returns and accounts have to be obtained.

4. ASSETS

Many English Balance Sheets show as a heading on the right-hand side the word "Assets," an asset being some property belonging to the business or a debt due to it. Often, however, items are shown on this side which never have been, are not, and never can be, property owned or a debt due to the concern. Some ingenious person has applied the term "fictitious assets" to such items, with a view to enabling the heading "Assets" to appear to be a true one; but the phrase itself shows the fallacy of such reasoning, for the two words contradict one another. It is far better to regard the Balance Sheet as a statement of account with the proprietors or proprietor and not to place any heading to the sides at all.

Ignoring for the moment such as are "fictitious," assets fall into two well-defined groups, viz. (1) Fixed Assets, and (2) Floating or Circulating Assets.

(a) Fixed Assets

A fixed asset has already been defined as one which is acquired by a business for use in earning profit, or to place the business in a position to carry on its trading activities. With a producing or trading organization the following would be examples of fixed assets: Land and Buildings, Plant and Machinery, Fixtures and Fittings, Motor Lorries or Horses and Vans. The Vessels of a shipping company would constitute a portion of its fixed assets, while the Locomotives, Rolling Stock and the Permanent Way of a railway company would fall into the same category. Such

assets are only "fixed" in the sense that they are of such a nature that they will be used over a considerable period of time, and are not intended to be resold. They are essential to the business, as without them no income can be earned. The nature of the business decides whether an asset is fixed or not. Thus while motor vehicles would be fixed assets to a business which uses them for the delivery of its goods to customers, or to a transport undertaking carrying passengers or commodities, they would be stock-in-trade of a motor dealer, and hence one of his floating or circulating assets. As already indicated, shares in other companies may be fixed assets.

This class of assets may be either (*a*) tangible, when they have a definite physical existence, such as is the case with those enumerated above, or (*b*) intangible, in which case they do not have any physical characteristics, but through their existence the profit-earning capacity of the business is increased. Examples of this class are goodwill, patents, trade-marks, copyrights, etc. Many fixed assets, whether tangible or intangible, are of a *wasting* nature, i.e. their value is gradually exhausted either through use or by the effluxion of time. Plant and machinery loses value through use, or by being superseded by a more efficient equipment. The value of leasehold property deteriorates as time passes, while trade-marks, patents, or copyrights cease to have any value after the expiry of a certain time or through their utility ceasing. A cemetery loses its value as it becomes full, a canal by lack of use, a colliery or quarry by exhaustion, a design by becoming out of date, and land and buildings by a change in the location of an industry. It is to compensate in some measure for such permanent shrinkage in value that we should provide for depreciation. Certain assets such as stocks and shares may shrink in value at any time, but such reductions may be due to conditions which are only of a temporary nature, such as depression on the

Stock Exchange, and the value may rise subsequently either to the price paid for them or even higher. Temporary changes of this nature are known as "Fluctuations" and not as wastage, and can generally be ignored.

If the Balance Sheet is to show the real position of the business it is necessary for the true value of the assets to be shown therein, and so far as fixed assets are concerned we are met with the difficulty as to what is their true value, seeing that there are two methods of assessing this. The first of these is to take the value of the asset on the basis of its usefulness to the business, while the second is the amount of money which would be obtained for it if sold. A business owns an old motor van with which it can deliver its goods to its customers as and when required. A new van could not do this work any better or more quickly, and thus the old and the new have the same useful value to business. On the other hand, if it be desired to sell the van, it is doubtful whether anything except a very nomi sum could be obtained for it. Which of these values shou appear in the Balance Sheet? "As a general rule the Balar Sheet is prepared on the assumption that the business a continuing one, and therefore that these fixed assets w continue to give the service for which they have bee acquired. If this view be taken then it is their value in us as units assisting in earning the revenue which will be shown in the accounts. The following remarks by the late Sir Mark Webster Jenkinson, K.B.E., F.C.A., the eminent chartered accountant, bears on this point—

> The real value of the fixed assets depends on the earning capacity of the business. . . . In a business which gives no return on the capital invested and which holds out no immediate prospect of such return, the value of fixed assets is merely the amount obtainable on realization, such amount being the break-up value, unless those responsible for the sale are fortunate to find a purchaser who desires to acquire the works and plant to meet his own requirements at a price less than the cost of erection.

It follows, therefore, that unless the real profit-earning capacity is ascertained we are unable to decide upon the true value of the assets. It will now be appreciated that the Balance Sheet of a continuing business usually shows the fixed assets at their value as profit-earning units, and not at what they will fetch if sold at the date of the accounts. In this respect a Balance Sheet differs from a Statement of Affairs in bankruptcy or in company liquidation, as the latter statement shows the assets at the value they are expected to realize, a figure which is generally much less than the value at which they appeared in the last Balance Sheet. It is due to this difference in outlook that the figures are so different, and not necessarily because there has been anything wrong in the preparation of such Balance Sheet.

The Companies Act, 1929, requires that the *basis of valuation* of these fixed assets be shown in the Balance Sheet, and the usual method of doing this is to show after the asset a statement somewhat on the lines of the following—

(*a*) "At Cost less Depreciation."
(*b*) "At Cost."
(*c*) "At Valuation made on . . . ."
(*d*) "At Market Price."

If the first of these statements appears it does not necessarily follow that the true amount of depreciation has been deducted, for if an asset which cost £100,000 had been written down by, say, £10, the statement would be true, even though the amount of the depreciation was ridiculously small. In the case of companies, however, the auditor would probably deal with the insufficiency of the depreciation in his report, hence the perusal of such report is a matter of major importance.[1] Prior to 1929 the auditor's report had

[1] An example of such a comment will be found on page 288.

to be read to the shareholders at the Annual General Meeting, but now it must be circulated with the accounts and be in the hands of such shareholders as are entitled to receive notices at least seven days before the meeting is held. When the assets are shown at cost it is clear that no allowance even for wear and tear has been made, and since it is usual to find that the value of a second-hand article is less than that of a new one,[1] some of the capital sunk in fixed assets has been lost, but such loss is not disclosed or taken into account. It has long been recognized in this country that a loss of capital need not be made good out of income, and hence, if profits made on trading are distributed without providing for this capital loss, the shareholders or proprietors must recognize that they are getting larger dividends, but will ultimately lose their capital. This was clearly stated by Lord Justice Lindley in the case of *Vernier* v. *General and Commercial Investment Trust, Ltd.*, [1894] 2 Ch. 239, when he said, *inter alia*—

> Perhaps the shortest way is to say that fixed capital may be sunk and lost, and yet that the excess of current receipts over current payments may be divided, but that floating or circulating capital must be kept up, as otherwise it will enter into and form part of such excess, in which case to divide such excess without deducting the capital which forms part of it will be contrary to law.

We sometimes find, particularly in the case of a company which has been formed to take over an existing business, that the fixed assets are taken at the value placed upon them by a competent and independent valuer, but it must not be overlooked that such value is an expression of opinion as to the worth, and is usually based on the present-day value of similar plant of the same age and condition. The value is

[1] Occasionally this statement will be found to need qualification, as, for example, where the new articles are being made from inferior material owing to a change in the policy of the producers or difficulty in obtaining the usual quality.

that of a buyer of such assets and usually ignores the profit-earning capacity. Sir Mark Webster Jenkinson has said—

> To the average assessor a plant unit has the same value, whether situated in the most convenient spot for economical production or in isolated shops dotted about the works.

In cases where the business is earning a satisfactory rate of profit, and fixed assets appear in the Balance Sheet at their market value, i.e. the price they would fetch if sold at that date, they are really undervalued, and, as we shall see later, an Internal Reserve has been created. Such a Reserve is not disclosed in the accounts and is generally called a "Secret" Reserve.

It will now be appreciated that in deciding the value of these fixed assets the profit-earning capacity of them must be taken into consideration. If times are bad and profits fall, the value will obviously be reduced, but if we are satisfied that such fall in profits is due to normal trade fluctuations, and hence only of a temporary nature, the real value of the assets remains unchanged. Consequently it is the average profits made which matters, and not the actual profit of any one year.

(*b*) Intangible Assets

As already indicated, fixed assets may be either (*a*) tangible, or (*b*) intangible. The former have a definite physical existence. They can be seen and can, if necessary, be sold separately. The intangible assets cannot be seen, though their existence has some effect, often very material, on the profit-earning capacity of the business. While the tangible assets often have a value as things apart from their profit-earning capacity the intangible assets usually have no physical value whatever. Goodwill is the intangible asset most often met with as it is taken into consideration

whenever a business is sold as a going concern. Goodwill was defined by Lord Eldon in 1810 as—

> nothing more than the probability that the old customers will resort to the old place;

and this was amplified in 1859 when another judge said—

> Lord Eldon did not mean to confine the rights involved in the term goodwill to the advantage of occupying premises to which customers were in the habit of going. Goodwill must mean every advantage (affirmative advantage, if I may so express it, as contrasted with the negative advantage of the vendor not carrying on the business himself) that has been acquired by the old firm by carrying on its business, everything connected with the premises and the name of the firm, and everything connected with or carrying with it the benefits of the business.

In a case in 1901 Lord Macnaghten in the Court of Appeal said—

> What is goodwill? It is a thing very easy to describe, but difficult to define. It is the benefit and advantage of the good name, reputation and connection of a business. It is the one thing which distinguishes an old-established business from a new business at its first start. . . . However widely extended or diffused its influence may be, Goodwill is worth nothing unless it has power of attraction sufficient to bring customers home to the source from which it emanates. . . . Goodwill has no independent existence. It cannot subsist by itself. It must be attached to a business. Destroy the business and the goodwill perishes with it, though elements remain which perhaps may be gathered up and revived again.

It will thus be realized that goodwill comes into existence as the business progresses. It is seldom found in the accounts of a business which is still controlled and managed by its founders, but it does appear when a business changes hands, for then the purchaser is called upon to pay not only for the actual tangible assets acquired by an expenditure of money but also for the advantage to be obtained from the fact that the business is an established one and its products well

known and in demand and profits are being earned. The late Professor Dicksee said—

> When a man pays for goodwill he pays for something which places him in the position of being able to earn more money than he would be able to do by his own unaided efforts.

To start a business entails great risks, but quite apart from the chances of the business failing there is often a period, sometimes very protracted, during which a sufficient connection is being got together to bring the business to a paying basis. To be spared this risk and the waiting period is something worth paying for, even though to maintain it subsequently calls for continued energy and industry on the part of the buyer. When goodwill is purchased, the expenditure thereon must be shown in the accounts, and an intangible asset comes into existence.

(1) Establish risk
(2) waiti

Goodwill may arise in various ways, the most notable being—

(1) a name which has become a household word, e.g. Harrods, Ford, Woolworth;

(2) the name of a commodity or a brand of goods, e.g. Quaker Oats, H.M.V., Bass, Sunlight Soap;

(3) a special locality, e.g. a tailor in Savile Row;

(4) the personality of the man, e.g. a doctor or dentist; or

(5) the value of a connection, e.g. a newsagent with a large number of customers to whom regular deliveries are made.

Needless to say, the value of goodwill varies with the different cases. For example, a doctor and a newsagent may make the same amount of profit, the one from his practice and the other from his business, but in the case of the doctor it is his personality which counts, and his successor may not be so successful with the patients. The

result is that the goodwill of a doctor's practice is worth much less than that of the newsagent's business in whose case regularity and promptitude of delivery is the important factor, the man himself probably being unknown to many of his regular customers, and so any change in proprietorship will not affect them at all. The purchaser of the goodwill of a business obtains the right to represent himself as being the successor to the business, and, generally, he may use the trade name by which the business has become known.

It will be obvious that the value of goodwill depends upon the profit-earning capacity of the business, and once more the importance of proper accounting methods in connection therewith becomes apparent. Usually the basis for the payment for goodwill is taken at a number of years' purchase of the average profits, such number of years' purchase varying from one to five according to the nature of the business. In modern practice, however, a business is often acquired on the basis of the profits made and the yield required by the purchaser on his capital. Thus, assuming the average profits are £10,000 per annum and the buyer desires to earn 10 per cent per annum, he would be prepared to pay a sum of £100,000 for the business. If the value of the assets were less than this, the difference is the amount of goodwill. In actual practice the computation is not quite so simple as this, as compound interest is often taken into consideration.

In some cases, however, the real payment for goodwill is obscured. This may happen when large sums are paid for such intangible assets as patents, trade-marks, or copyrights, as all these partake of the nature of goodwill. Sometimes a business is offered for sale at a figure which allows very little or even nothing for goodwill, but when the purchase involves the acquisition of assets, some of which may be out of date, or carrying onerous charges, or which may

have to be scrapped to improve the position, the real amount being paid for goodwill is materially greater than the amount specified as such.

Under the Companies Act, 1929, the value of intangible assets must be stated separately in the Balance Sheet when such value can be ascertained. With new companies the ascertainment is easy, but with old companies it may now be impossible to obtain the figures at which such assets stood when the business was acquired many years ago.

The question as to whether goodwill should be depreciated has long been a matter of discussion. In some companies it has been written off out of profits, and no longer appears in its accounts, but the more common procedure is to show it in the accounts at its cost price. It is not consumed or exhausted in the earning of profit as is a tangible and fixed asset; it is not subject to wear and tear or to obsolescence; and it does not suffer depreciation through carrying on business, nor does it require renewal. On the other hand, in some cases the goodwill of a business may become of less value than the price paid for it owing to an alteration in trade conditions or in management. An example of this occurred some time ago when a well-known store which had a large and valuable connection with well-to-do people sacrificed a large portion of it when they made a special feature of advertising goods which they were prepared to sell on hire-purchase agreements, as people who had previously dealt with them ceased to buy for fear it might be thought that they were acquiring goods on the extended credit plan instead of on monthly account or cash as before.

If average profits decline then goodwill is falling in value, but if the returns are more than maintained on the average then it is becoming more valuable. At the period when it might be considered advisable to write down this item the profits earned might not, and probably would not, permit

this being done,[1] while if it be written down in times when large and increasing profits are being made a Secret Reserve is formed. It is customary therefore to leave it in the accounts at its original cost. In no circumstances should it be written up, as this would be taking into account a profit which had not been made.

The value of many intangible assets, such as patents, trade-marks, or copyrights, is very problematical, and the ordinary methods of depreciation cannot be applied to them. They may increase in value owing to the demand for the products produced and marketed under them, or their value may vanish almost in a night when a new or improved patent is registered, a change in public taste takes place, or there is a cessation in the demand. The only satisfactory method of dealing with such assets is to revalue them periodically, and write down the amount at which they stand in the books when such revaluation shows a reduced figure. Here again no appreciation would be taken into account should they now be shown to stand higher in value than before.

(c) Circulating Assets

This class of asset consists of those which are constantly changing as business is done. We start with cash, and this is used by a manufacturer either immediately, or at some time later, to pay for the raw material to which labour is applied (for which more cash is paid) in order to produce articles in a state in which they can be sold. Such completed articles until sold become stock, when either cash is received or a debt becomes due to the business, which should ultimately be collected in cash. In this process of circulation profit should be, and usually is, made, but at

[1] When losses are being made and goodwill has not been written down or extinguished, this item becomes a fictitious asset, as it would then be of little or of no value.

any given moment we cannot state the proportion which any one of these assets bears to the whole or to others. At one time stock of raw material may be high, and that of the finished goods low; the latter may then increase and debtors decline as and when sales fall off. Debtors may be small and Cash large, or vice versa. Good management naturally tries to provide for contingencies and keep the rate of circulation steady. If the period of credit allowed to debtors lengthens, the liquid position is worse than it was before the change took place, but if debtors pay more quickly than usual the converse applies. If the time occupied by manufacturing processes is shortened circulation is speeded up and ratios change. If the circulation is not maintained at a steady rate the cash position is bound to be affected, the amount being either in excess of requirements or lower than advisable. Not only is the profit-earning capacity of the business affected by this circulation, but it is a most important factor in the general financial position of the business.

(*d*) Liquid Assets

The ability to meet the liabilities and expenses which arise in every business as they fall due depends upon having cash available when the due date of payment arrives. If there be any delay in the collection of cash arising from the circulation of assets, financial stringency will result, consequently any factor which will assist in speeding up the collection of cash ensures greater financial strength. Those circulating assets which are readily convertible into cash are known as "liquid assets," though in the United States of America they are called "quick assets." The liquid assets usually consist of "Cash at Bankers and in Hand," "Bills Receivable," "Sundry Debtors," and "Stock-in-trade." These should be shown separately as the degree of liquidity varies; thus when the financial position of the parties is

satisfactory, bills can be discounted to raise cash quickly; debtors can be tempted to pay promptly or even before the due maturity of the debt by offering suitable discounts. Stock, however, can only be converted by special "sales" which are such a feature in certain trades to-day, but this usually entails a reduction in price, and hence lower profits.

The item of Debtors should not include items such as "Prepaid Rent, Rates, or Insurance" as such sums do not represent sums actually due to the business, but services which can be claimed in the future. Such assets are not liquid or even circulating, but are the balance of revenue payments which have not expired or been fully used. Similarly any stock of stationery, advertising matter, price lists, etc., which may exist, and the cost of which is carried forward, should be shown separately, for such articles are not saleable at all and hence are only useful to the business so long as it is a continuing one.

Circulating assets should always be shown at their actual realizable value at the date of the Balance Sheet, even when such realizable value is less than the figures at which they appear in the accounts. The stock is taken at the cost or market price, whichever is the lower. Debtors should be taken, subject to a proper reserve for doubtful debts being created, and allowance made for bills which may not be met at maturity. This procedure will ensure that all probable and possible losses which may arise are taken into account, but that only actual profits made are considered. If losses have taken place then circulating assets diminish, but when profits are made they increase. This is illustrated in the following—

Assume £10,000 is available in cash for use in trading and this is applied in paying £4000 for raw material, £5000 for wages, and £1000 in general expenses. Ninety per cent of the goods produced are then sold for £12,500

and at the end of the period only £8500 of this sum has been collected. We thus find the following circulating assets—

	£
Cash	8,500
Debtors	4,000
Stock (10% of £9,000) .	900
Total . . .	£13,400

as against the £10,000 at the opening of the period. If a debtor for £2000 fails to pay his debt then the circulating assets are reduced accordingly. If the goods which cost £9000 to produce are sold for a figure which does not cover this cost and the expenses of doing business (£1000), there is a loss of circulating assets. For example, if the goods were sold for £9500 there would be a loss of £500. If losses continue to be made for any number of successive periods the capital available to finance trading operations becomes smaller, and with each reduction there follows a shrinkage in the volume of business which may be transacted, and the downward trend of the business continues at an ever accelerating rate.

While some individual assets may be either fixed or circulating according to the nature of the business, the general dividing line between them is quite clear and in most cases little difficulty will be experienced in deciding into which class any particular asset falls.

Profits are usually made through the circulation of these floating assets as the purpose of most businesses is to convert circulating assets into cash as quickly as possible. Occasionally one meets with profits arising from the sale of fixed assets. The sale of such assets is not a normal form of business operation, and the profit is known as a capital profit, and this should be distinguished in all cases from profits from the usual trading activities, seeing that in the

case of a company such profit is not divisible unless the requirements set out on page 124 have been complied with. As to what is a capital profit depends upon the nature of the company's business; thus if a manufacturing company owns land and sells some or all at a profit, such profit is a capital one, but if a land development company carried out a similar deal any profit made by it would be a revenue profit.

(*e*) Investments

The question of the nature of investments has already been dealt with when considering whether interest received on them is primary or secondary income from the point of view of the investor, but it now becomes necessary for us to consider the value at which they should appear in the Balance Sheet. If the investments are such as are quoted on the Stock Exchange their value at any date can be ascertained easily and quickly, and hence comparison with the price paid is simple. Temporary investments of funds surplus to requirements will usually be of this nature and will rank as circulating assets.

Other investments may not have a Stock Exchange quotation and there is then some element of doubt as to their value, but if these are held because of the advantage they confer to the manufacturing or trading activities they may be regarded as fixed assets, and thus their value to the business depends not on their market value alone, as there is no intention of selling them, but on their profit-earning value to the business. Such investments are often called "trade investments." Another form of investment frequently met with is one where a Sinking or Depreciation Fund has been created, and cash representing the amount charged against the Profit and Loss Account is invested in securities of such a nature that when the money is required they can be readily realized. This type of investment is

also of a fixed nature, as in the case of the Sinking Fund there is probably an agreement for its creation in order that a debt can be discharged, while with a Depreciation Fund there will be an asset to be replaced.

Divergences between the value at which quoted investments appear in the books and the lower market value at any date (any increase in value is ignored) may be due to one of two factors, viz.—

(1) A fall in the real value due to the company in which the investment is made showing very poor results, and reduced dividends, or to the dividend on similar investments being higher; and

(2) A temporary fall in the Stock Exchange quotation due to abnormal sales or speculative activity.

The former is the more serious as here the shrinkage in value may be of a permanent or semi-permanent nature, and for this loss provision must be made. In the latter the fall is of a temporary nature only and the value is likely to recover quickly, hence such fluctuations can usually be ignored. Where a company holds a number of investments it is customary to compare *the market value of the whole* with the total figure at which they appear in the books. If the former exceeds the latter no consideration is taken of falls which may have occurred in individual items, fluctuations in one direction being allowed to offset those in the other.

In practice it is seldom that investments are actually written down even when the fall appears to be of a permanent or semi-permanent nature, but an Investment Reserve[1] is created by charging against the profits a sum to cover the shrinkage in value. If this be done the actual loss made if the stocks or shares be realized will be charged

[1] See the example in the accounts of General Refractories Ltd. on page 217 *et seq.*

against the Reserve which has been made, while if they recover in value the Reserve can then be used for some other purpose, or credited to profit for distribution at a later date. If, on the other hand, the asset itself had been reduced in value it would not be considered a wise procedure to write up its value even to its original cost, as if this were done misunderstanding might arise as to what had actually happened, and as to whether the sum written back could be treated as profit. As the anticipated loss had been provided for out of profit, then, when the anticipation is not realized, the profits held back are released. This is clearly the procedure when an Investment Reserve has been created.

Another type of investment occurs where a company acquires shares in another company and such shares constitute more than 50 per cent of the capital of such company, or confer the majority of votes, or the right to appoint more than half of the directors. The company whose shares are so held is then a subsidiary of the other. (See also page 127.) The Companies Act, 1929, provides that the company holding shares in one or more subsidiaries *must show as a separate item in its Balance Sheet* the aggregate amount at which such shares stand in their books. Some companies, notably the banks, give some details of their different holdings and thus give more information to their shareholders than the law actually requires. The following example taken from the Balance Sheet of Barclays Bank, Ltd., illustrates this additional detail—

	£	s.	d.
INVESTMENTS IN SUBSIDIARY BANKS at Cost less amounts written off—			
The British Linen Bank, Ltd., £1,239,044 Stock .	3,717,132	0	0
Union Bank of Manchester, Ltd., 300,000 Shares of £5 each, £2 10s. paid	750,000	0	0
Other Subsidiary Banks (including fully-paid Shares and 500,000 "B" Shares of £5 each, £1 per Share paid up in Barclays Bank (Dominion, Colonial and Overseas), Ltd., and 1,000,000 Shares of £1 each, 5s. paid up in Barclays Bank (France), Ltd.)	2,229,254	13	0

The following is an extract taken from the Balance Sheet of the Associated Biscuit Manufacturers, Ltd., as at 31st March, 1937—

INVESTMENTS IN SHARES OF SUBSIDIARY COMPANIES at Cost	£2,000,000.

A comparison of these two statements at once reveals that when details of the holdings are given (as in the first of the examples above), an opportunity is afforded the shareholders of the holding company to assess the value of the share holdings of their company, whereas in the second case they are not even told the names of the companies in which shares are held, or the nature of the holdings which have been acquired, and thus have no means of deciding whether the investments in the subsidiary companies are correctly valued. This matter will be referred to later when we are considering the criticism of holding companies' accounts. Shares in subsidiary companies are obviously fixed assets, and where a company is purely a holding company and does not trade on its own account, the dividends on investments of this nature will be the main source of its income.

(*f*) Loans to Subsidiary and Associated Companies

Loans to subsidiary companies must be shown as a separate item in the Balance Sheet of the holding company (Section 125, Companies Act, 1929), and we also frequently find that loans to companies closely associated with the lender are also separately specified. In no cases should loans to the latter class be hidden away amongst the Sundry Debtors, for such advances may be "frozen" in that they are not intended to be collected in the near future, even if they have not been made in order to finance the other business permanently. Loans to subsidiary and/or associated companies cannot be regarded as liquid assets, and frequently any efforts to collect the amount owing would result in the

debtor company having to be put into liquidation. This policy of financing other organizations from the funds of the parent company is easily abused, and fresh advances may have to be made in order to prevent the previous sums advanced from being lost, with the result that the lending company depletes its own cash resources and may handicap its own development and trading activities.

(g) Loans to Directors and Officers

One occasionally finds that directors have borrowed money from the company, a procedure which is not satisfactory. A director really stands in a fiduciary relationship to the company for which he acts, and is thus a trustee of the moneys coming under his control, and these should not be used for his private advantage. Since 1929 any loans made to a director must be disclosed as a separate item in the Balance Sheet, even though repayment has taken place during the year and before the closing of the accounts (Section 128, Companies Act, 1929). If the balance owing at the date of the Balance Sheet is smaller than the original amount advanced, the full facts must be set out somewhat on the following lines—

LOANS TO DIRECTORS—	£	
Balance at 1st January	5,000	
Further loans during year	10,000	
	15,000	
Repayments during year	8,000	
		£7,000

An exception to this procedure is made in the case of companies which lend money as part of their business, e.g. banks, as in such cases directors might borrow in the normal course of business and as customers.

Similar conditions also apply to loans to officers of the company in order that they may acquire fully paid shares

of the company they serve, but disclosure is not required when the loan to any employee does not exceed £2000 and it is part of the company's policy to encourage its servants to acquire shares and to assist them with advances.

Information must also be given as to any loans which have been made to directors and officers by outside persons, the security for which consists wholly or in part of the guarantee of the company or of assets provided by it. While there is no actual liability on the part of the company at the moment, yet if the borrower makes default in repayment the company will be called upon to meet the amount then outstanding.

In the past many loans of this nature were hidden away in the item of "Sundry Debtors and other debit balances," but, whereas in the case of debtors the due date of payment of their obligations is known, the loans enumerated above fall into quite a different category and hence may not be readily collectable, while in many cases they will be repayable by instalments spread over a lengthy period.

(*h*) Fictitious Assets

As already pointed out, this term is a contradictory one, but it is meant to indicate sums which have been expended and which are really expenses, but which owing to their nature should not, or cannot, be charged conveniently against the period in which the money has been paid, usually because the full benefit has not been obtained from the expenditure, or the advantages are of a continuing nature. While this deferred benefit is treated in the same way as an asset, yet the fact remains that the amount so recorded is an actual loss which has been incurred, and if anything happens to cause the business to go into liquidation nothing whatever can be recovered from such items. The fictitious assets usually met with, and which must be disclosed in the

Balance Sheet of a company as long as they are outstanding, are—

(1) Preliminary expenses—the amount of expenditure incurred in connection with the formation of the company, and without which it could not have come into existence, e.g. legal fees for drawing the Memorandum and Articles of Association, preparing, printing, and advertising the prospectus, stamp duties on the registration of the company, etc., etc.

(2) Expenses incidental to the issue of capital or debentures. These are often very heavy, and since the use of the money raised will continue at least for some years it is only fair that these expenses should be charged over all the years which benefit from such use. This item, however, is usually written off against the profits in from three to five years.

(3) Commission paid on the issue of shares or debentures. This item arises when there is no public issue, but capital is "introduced" to the company. It is practically the same in its nature as (2) above.

(4) Discount on Debentures. The issue of Debentures at less than their par value is usually done to enable the company to pay a slightly lower rate of interest, the investors being compensated by a capital profit when the loans are repaid. The discount therefore is really a capitalization of the difference between the actual rate of interest and the rate which would have been paid if the Debentures had not been issued at a discount. Such being the case the discount can be, and often is, written off over the life of the Debentures, though there is no reason why it should not be written off in a shorter time if so desired.

(5) Discount on shares issued at less than their par value. The permission of the High Court to issue shares

at a discount is necessary, and, when it is done, the discount must be treated in the same way as discount on Debentures explained in (4) above.

(6) Any loss which has been incurred in trading. Such a loss is really a reduction of the capital invested in the business, and in the case of a sole trader or partnership would be deducted from the capital, but, with companies, reduction of capital can only be made with the consent of the Court and hence this item of Loss appears in the Balance Sheet until written off, usually being described as "Profit and Loss Account—Balance at debit thereof."

CHAPTER VIII

BALANCE SHEETS (*Contd.*)

1. CLASSES OF LIABILITIES

The obligations of a business fall into three main classes, viz.—

(i) Liabilities for goods supplied or services rendered or expenses incurred which are payable within a very short time. Such liabilities are termed "Current" liabilities.

(ii) Liabilities incurred, usually for money lent, payment of which is only to take place after many years. Debentures are a very good example of such "Long-term" liabilities; and

(iii) Liabilities to the proprietors of the business. Apart from any question of the distribution of profits in the form of dividends the amounts due to such proprietors are only payable in the event of winding-up.

The first of these classes must be discharged out of the liquid assets if the credit of the business is to be maintained and its trade continued. The second are often met from savings or by further borrowing, but no provision for payment of the last-named will be necessary and hence the effect of the items on the financial side of the business will vary materially.

2. LIABILITIES TO PROPRIETORS

(a) Capital

In the majority of Balance Sheets a clear differentiation between the totals of the first two classes is made, but the items comprising the third class are often scattered and the total amount not actually shown. While some at least of these are not actually payable until winding-up (unless there has been a resolution as to the return of some portion of the capital), and are thus only technically liabilities, they really represent the financial interest of the proprietors in their business. This is commonly recognized in the United States of America, where from the total value of the tangible and intangible assets (fictitious assets are obviously ignored) we subtract the total of the current and long-term liabilities, thus obtaining what is known as the "surplus," or actual interest of the proprietors in the business. Such surplus not only includes the actual capital introduced into the business, but also any profits which have been made and which have not been distributed in the past, whether such profits have been transferred to a Reserve Account or not. This is clearly shown in the American Balance Sheet in Appendix A, item 34 or 36. It must not be overlooked that such surplus is not legally payable to the proprietors, except as to dividends declared out of profits, until all other creditors have been paid the full sums owing to them. This kind of obligation is best described as a "Deferred Liability."

In the case of companies the debit side of the Balance Sheet opens with a statement as to the capital of the undertaking. The authorized or nominal capital of the company is always stated in the last section of the Memorandum of Association, and the details of this should be shown in the Balance Sheet, followed by the details of the actual capital issued by the company. The difference between the authorized and issued capital will represent additional shares which the company can issue if and when additional working

capital becomes necessary. The various classes of shares which comprise the capital must be shown separately.

EXAMPLE I

Authorized Capital—	£
100,000 6% Cumulative Preference Shares of £1 each	100,000
150,000 Ordinary Shares of £1 each	150,000
	£250,000

Issued Capital—	
100,000 6% Cumulative Preference Shares of £1 each,	£
fully paid	100,000
75,000 Ordinary Shares of £1 each, fully paid . .	75,000

In this case the actual amount subscribed by the proprietors is £175,000, for which an actual liability is shown in the Balance Sheet. From this statement it is clear that the company has the ability to issue 75,000 more Ordinary shares of £1 each, in order to increase its cash resources or in exchange for assets acquired when a need for such arises.

In the case of Balance Sheets of companies in the United States of America and some Continental countries, it is customary to show the whole of the authorized capital as a liability and then to treat as an asset the shares which have not been issued. If this policy were applied in this country the Balance Sheet would show the items as follows—

BALANCE SHEET

LIABILITIES	£	ASSETS	£
Capital—		Shares in the hands of the Treasurer:	
100,000 6% Cumulative Preference Shares of £1 each, fully paid .	100,000	75,000 Ordinary Shares of £1 each . .	75,000
150,000 Ordinary Shares of £1 each, fully paid	150,000		

Such unissued shares are said to be "in Treasury" (see item 34 of Appendix A) and are sold by the treasurer of the company when he needs additional cash, frequently being

"hawked" by salesmen. Such a procedure is only justified on the assumption that all the shares have been issued by the company, the treasurer being the nominal holder.

We sometimes find that the issued capital is not fully called up, e.g. while the shares are of a denomination of £1, only 10s. has been demanded of the shareholders in respect of each share, and there is a liability on their part to pay the other 10s. per share at such time or times, or in such manner as the directors of the company may decide, subject to any restrictions as to the amount or the frequency with which calls can be made.

In such a case the position should be made clear in the opening statement of the Balance Sheet as follows—

EXAMPLE II

Authorized Capital—	£
100,000 6% Cumulative Preference Shares of £1 each	100,000
150,000 Ordinary Shares of £1 each	150,000
	£250,000
Issued Capital—	
100,000 6% Cumulative Preference Shares of £1 each, fully paid	£ 100,000
150,000 Ordinary Shares of £1 each, 10s. called . .	75,000

While the capital actually raised is the same in this case as in Example I, yet the method is different in that in the first case only a portion of the Ordinary shares were issued, but the whole amount was called up, while in the second case the whole of the shares have been issued but only a part has been demanded, and hence the shareholder can be called to pay the balance. The amount collected from the shareholder is known as "paid-up capital." This second method has much to recommend it from the point of view of the company in that where shares are partly paid it is only necessary for the directors to make a call when the company needs more money, whereas in the former case there may be great difficulty in obtaining subscriptions for the remaining

shares, either because the market is not ready to absorb them owing to shortage of funds, or owing to the poor record or unsatisfactory position of the company there is not likely to be a large demand.

Partly paid shares are not, however, regarded very favourably by many investors, and are not satisfactory as security for loans, owing to uncertainty as to when the balance or some part of it will have to be paid. A company with uncalled capital (i.e. the difference between the issued and paid-up capital) thus has an additional asset which can be called upon to meet the claims of creditors, for the liquidator of the company can demand such part of this unpaid capital as may be necessary to enable him to discharge the debts of the company. In some cases such uncalled capital is pledged as part of the security given to debenture-holders. In some companies, notably our great banks, some part of the uncalled capital is "reserved," which means that such amounts cannot be called up by the directors in order to finance the business and can only be demanded by the liquidator when the company is being wound up. Such amount is not therefore available for the development of the business of the company, but can only be used to meet the claims of the creditors when the company comes to an end, and the assets in its possession are not such as will enable the creditors to be paid in full.

Each class of capital must be shown separately as indicated above so that the rights of each class of shareholder can be seen clearly. Occasionally we find that the capital of a company is in the form of stock and not in shares. *Stock is always fully paid* and has the advantage that transfers of any amount can be made, unless the Articles of Association lay down conditions, e.g. that "transfers must be in multiples of 2s. 6d." In the case of shares only dealings in specified amounts (i.e. the nominal value of the shares) or multiples thereof can be made. Thus, subject to the

Articles, we can sell £175 15s. of stock, but 175 shares of a nominal value of £1 each.

In certain cases when shares are highly priced on the Stock Exchange or the shares themselves are of high denomination, they are split into "units," e.g. a share may be five units, and units are bought and sold. This usually necessitates the shares being held by trustees or an organization acting as such, in order that a register of the unit holders can be kept, as the company seldom registers the ownership of such units. Unit holders may not necessarily have any voting power in the company at all, unless the company issues the units, and in such cases there seems no reason why the shares should not be split into others of a small denomination, e.g. the £1 shares cancelled and four shares of 5s. each issued in their place.

(*b*) Reserves

Any well-managed business usually shows a constant expansion of the volume of business done, with the result as previously stated that its financial requirements become greater. The easiest method of providing this additional finance is to retain in the business some of the profits which have been made, and such sums as are allocated for this purpose are transferred to a Reserve Account. The usual definition of a Reserve is "an accumulation of undivided profits set aside to meet contingencies and provide additional working capital." Such sums can subsequently be used to maintain dividends when profits fall off, or to meet unexpected and unusual losses, and, if such are likely to occur, then the moneys retained should not be used within the business in financing extensions, as by doing so their liquidity may be, and often is, lost, but should be invested in easily realizable securities, preferably of a gilt-edged nature. When there is such an outside investment we should speak of a "Reserve Fund," thus differentiating this

procedure from the case where the working capital used in the business is increased.

As we have already seen we also make Specific Reserves against losses which we know will arise, though the exact amount of these is not known at the time they are made. It is customary for such Specific Reserves to be deducted from the asset item in respect of which they are made and then to show only the net figure in the Balance Sheet, e.g. "Sundry Debtors less Reserve for Doubtful Debts."

General Reserves, representing as they do accumulations of undistributed profit, constitute a liability of the business to its proprietors and should be shown separately on the Balance Sheet. We sometimes find that companies decide to capitalize their Reserve, in which case they distribute bonus shares to the shareholders, and by so doing transfer the amount of such bonus shares from the Reserve to the Capital Account. This has the result of bringing the legal capital of the company more into line with the actual amount used, and moreover causes the dividends paid to be more in accordance with the actual earning power of the company. The results are clearly seen in the following example—

A company has an authorized capital of £200,000 in shares of £1 each, and an issued and paid-up capital of 100,000 shares of £1 each fully paid. It has accumulated a General Reserve of £65,000 and decides to capitalize £50,000 of this Reserve by issuing bonus shares of £1 each fully paid to the shareholders, in the proportion of one bonus share for every two shares held.

Prior to the declaration of the bonus the Balance Sheet would show the following—

Issued Capital—	£
100,000 Shares of £1 each, fully paid	100,000
Reserve	65,000

while after the issue has been completed the items will appear as follows—

	£
Issued Capital—	
150,000 Shares of £1 each, fully paid	150,000
Reserve	15,000

Though the shareholders now have three shares for every two they previously had, there is really no change in their actual position, and if the profits continue on the same basis as before they will only receive the same *amount of dividend* as before, and as this *amount* now refers to three shares instead of two, the *rate of dividend* is reduced. Thus, supposing that prior to the bonus being declared the dividends paid had been £15,000 or 15 per cent on the issued capital, then, if the same amount of £15,000 be paid in future, this sum is now distributed over £150,000 of capital and the rate of dividend is 10 per cent.

It should also be emphasized that the increase in capital which has taken place does not improve the financial position of the company in any way whatever, and that there is no change in the profit-earning capacity of the business. It is usually assumed that when the capital has increased, more money has become available to the business, hence, if it be not known that there has been a bonus distribution, the fall in the amount of the Reserve gives the necessary clue to what has happened. It follows that to ascertain the true state of affairs a series of Balance Sheets is necessary, and not merely the last one. If an issue of bonus shares would increase the amount of the issued capital beyond the amount of the authorized capital it will be necessary for the Memorandum of Association to be amended to allow for the additional amount.

Internal Reserves have already been mentioned, but these are not shown directly on the Balance Sheet and their presence and effect will be discussed later.

(c) Profit and Loss Accounts

Any profit made by the business belongs to the proprietors and the amount of this, less any amounts (*a*) transferred to Reserve, (*b*) used for other purposes, or (*c*) distributed in the form of dividends, remains a liability which must be shown in the Balance Sheet. In the case of a company, it is the balance of the Profit and Loss Appropriation Account which is brought in (see page 132 *ante*). It should be remembered, however, that from such balance the dividends that the directors recommend should be paid will subsequently have to be deducted when payment takes place. Dividends on Ordinary shares can only be declared by the shareholders, though the amount cannot exceed the figure recommended by the directors. The Preference share dividend can usually be declared by the directors, and, if they have decided upon the payment and at the date of the accounts such dividend has not been paid, then the amount should be deducted from the profit balance and included as an actual liability.

If there has been an actual loss on the operations of the business, then the liability to the proprietors is reduced by such amount, and any profit brought forward from the previous period should be set against this, otherwise in the case of sole-traders or partners the loss will be charged against their capitals. Where a company suffers a loss, such loss can be written off, if so desired, by a transfer from the Reserve Account, but if this be not done then the balance of loss must be shown in the Balance Sheet *upon the assets side* (as it is a debit balance). This is due to the fact that companies have no power to reduce their capital without the consent of the Court. Remember that though the books of the company will still show the same paid-up capital, yet the actual capital used in financing the business is reduced by the amount of such loss, for this has exactly the opposite effect on the amount of money at the disposal

of a company to that of a profit. Subsequent profits are usually applied in writing off this adverse balance, but legally this is not necessary. It has been held by the Courts that the loss being a loss of capital need not be made good out of subsequent profits (*Ammonia Soda Co.* v. *Chamberlain*, [1918] 1 Ch. 266), and that if in any one year a profit is made, such profit can be, if so wished, distributed to the shareholders, irrespective of any losses which may have occurred in previous years. In practice, however, it is customary for any debit balance on the Profit and Loss Account to be entirely written off before any dividends are paid.

3. LONG-TERM LIABILITIES X

These usually take the form of loans repayable after the expiry of some lengthy period. In the case of a company any money lent is usually secured by an issue of Debentures. Any long-term liabilities should be shown separately as their effect on the financial position of the undertaking is quite different from that of the short-term or current liabilities. These latter have to be met out of liquid assets, whereas the former only mature in the future and as already stated are not infrequently met by fresh borrowing. The nature of the Debenture should be stated, e.g. "5% Mortgage Debentures," as this indicates that the security covering the loan is a specific charge on certain fixed assets such as land and buildings.

Debentures are sometimes issued at a discount, repayable at par. In such cases the actual liability on the issue is the par value, except during the six months immediately following the issue, as, should the issuing company go into liquidation within that period, the debenture-holders can only claim the amount actually paid to the company, together with interest thereon, to the date of repayment. The full nominal value of the issue is therefore shown in the accounts, and

the difference between this sum and the amount received is charged to an account called "Discount on Debentures." This item is a debit balance and must appear on the asset side of the Balance Sheet until such time as it is written off against profits (Section 44, Companies Act, 1929). This is generally done within a very few years, but it is quite in order to write off the amount over the life of the Debentures seeing that when Debentures are issued at a discount the rate of *interest payable* on the nominal amount is lower than when they are issued at par, though the *yield* will be approximately the same. The amount of the discount is therefore really the capitalized value of the difference between the interest actually payable and that which would have had to be paid if the Debentures had been issued at par. The difference between the amount actually subscribed by the debenture-holder and the sum repayable to him represents a capital profit to the holder.

Debentures are occasionally issued at a premium, i.e. at more than their face value, and here again the actual liability is the nominal value, the premium being a profit to the company issuing them, though not strictly a revenue profit and consequently is not generally used for dividends. Such premium is, therefore, used either in (*a*) writing down any fictitious assets which may be shown; (*b*) reducing an item like Goodwill; or (*c*) transferred to General Reserve, but until any or all of these be done the premium should be shown as a separate item in the Balance Sheet.

Debentures are sometimes repayable at a premium, e.g. Debentures issued at par repayable at the end of ten years at 102½ per cent. It is generally provided that if the repayment takes place before the expiry of the term through the company being wound up then only the nominal value is repayable plus any interest in arrear. In all such cases the liability during the life of the Debentures is the par value, and this is the amount actually

shown in the accounts, though a note should be appended stating the facts, e.g.—

5% First Mortgage Debentures . . . . . (Repayable in 1946 at 102½%)	£100,000

Here the premium is contingent upon the loan running its full time, and there is no actual liability attaching in respect of the premium till the repayment date is reached.

Bank loans are sometimes secured by the issue of Debentures as *Collateral*, or a secondary security. In such cases the amount of the loan to the company is usually less than the nominal value of the Debentures issued to cover the indebtedness. The liability which should be shown is the actual amount of the loan and a note of the issue of Debentures as collateral appended, in the following way—

Bank Loan . . . . (Secured by an issue of Debentures for £150,000)	£123,000

Any interest which has accrued due on any Debentures to the date of the Balance Sheet should be shown separately but added to the amount of the Debentures, e.g.—

	£	£
5% First Mortgage Debentures	100,000	
Interest accrued	1,250	
		101,250

thus enabling the extent of the arrears of interest to be seen. While it is true that this interest will in due course have to be paid out of liquid assets, yet the Debenture deed charges the property pledged as security not only with the amount of the sum due on the Debentures but also with all interest accrued. Such arrears should therefore not be included in the current liabilities, not only for the reason just given but for the fact that if they are added to the other current liabilities the real position is not disclosed and the actual extent of arrears concealed.

In the foregoing example we see that there is only three

months' interest accrued on the Debentures, and as Debenture interest is generally payable half-yearly upon dates which do not necessarily coincide with those to which the accounts are made up, it will often occur that interest has accrued at the end of any accounting period. Thus, if the company prepares accounts half-yearly at 30th June and 31st December, and the Debenture interest is payable on 31st March and 30th September, then at either 30th June or 31st December there are three months' interest accrued. This is quite a normal position and there would follow no real misunderstanding of the position supposing this item of interest had been included with the current liabilities, so long as the amount is shown separately.

If, however, the position were as follows (and the example is taken from the Balance Sheet of an actual company which is reproduced on page 277)—

	£	s.	d.
5% First Mortgage Debenture Stock . .	260,000	0	0
Debenture Stock Interest unpaid and accrued.	32,933	6	8
	£292,933	6	8

it will be seen that some two and a half years' interest is outstanding. Debentures usually confer the right to appoint a Receiver in respect of the assets charged to secure them when interest is not paid when due, and when there are large arrears the position is a very precarious one indeed, unless the holders of the Debentures have agreed to grant a moratorium. If so large an item of interest unpaid and accrued were to be included in an omnibus item of Sundry Creditors, the true significance would be lost, and the actual position and the danger arising therefrom concealed.

In cases where only a normal amount of interest has accrued, i.e. some sum equal to or less than that for the period over which it is usually paid, the amount will in due course mature and be paid out of the liquid assets, and,

therefore, as will be shown later, the item must be included with the current obligations when studying the effect of liabilities on the financial position of the business.

Any loans such as bank advances which may have been raised should also be shown separately, as they are usually for a fixed period of time. Some form of security is generally lodged in respect of these, and the fact that the loan is secured other than by the operations of law must be stated (Companies Act, 1929, Section 124 (3)), though it is not necessary to show the nature of the security.

4. SHORT-TERM OR CURRENT LIABILITIES

This class includes all other liabilities due to third parties which are payable either immediately, on demand, or within a short period of time. Such obligations usually arise out of the trading operations of the business, and include (*a*) sums due to creditors for goods supplied, or services rendered; (*b*) amounts accrued in respect of expenses such as wages, salaries, telephones, electric light supplied, etc. In the last-named group the exact amount owing in respect of some of the items will not be known, and in such cases an estimate is made. Care must be taken to see that all items of expense which have accrued are brought into account, and that the estimates of the amounts owing are reasonable ones.

There is no necessity to distinguish between the two forms mentioned above as they are both of the same nature, and hence have the same effect on the business, though occasionally we find the Balance Sheet sets out the different classes, e.g.—

	£	£
Trade Creditors . . .	4500	
Sundry Creditors . . .	575	
Expense Creditors . . .	325	
		5400

Some of these current liabilities may, however, fall into a category where the date of payment is definitely fixed, or which, if not discharged at maturity, may have a deleterious effect on the business. Bills payable and bank overdrafts are examples. Bills which have been accepted must be met on their due date or the credit of the acceptor is seriously affected. Bank overdrafts are granted temporarily, and may be terminated at very short notice, in which case the bank would, until the debt be extinguished, apply any sums paid in by its customer to reduce the overdraft, thus seriously handicapping the business. Liabilities of this nature should be distinguished from those which are payable over the period of credit allowed, and the usual method is somewhat as follows—

	£	£
SUNDRY CREDITORS		
Bank Overdraft . . .	2,643	
Bills Payable	5,400	
Trade Creditors . . .	2,540	
		10,583

Occasionally we find that credit balances in the books are included in such an item, in which case the wording generally used is *Sundry Creditors and Other Credit Balances*. Such credit balances may include items which do not represent sums due to third parties and hence do not fall into the category of liabilities payable. An example would be a Reserve which has been made in anticipation of a loss, but which it is not desirable to show as such in the Balance Sheet. Such a sum is not a liability to anyone, and entails no payment. Suspense accounts may also be included, and these may cover a variety of things. It may, for instance, happen that a sum of money has been received, but it is not known to which of several accounts it should be credited, and until this essential information is obtained the amount is placed in a suspense account. In such a case there is either (*a*) an actual liability, or (*b*) a reduction in a debt due to the business, and no criticism can arise through including

such an item in the creditors. Another use of a suspense account occurs when there is an undiscovered difference in the books and the amount is placed in suspense until the correction can be made. Here again no liability exists at the moment, though it is possible that, when the cause of the difference is found, one may be created. It would be much better to disclose specifically this kind of suspense account, though it is seldom done in practice.

5. SPECIAL LIABILITIES

So far we have dealt with the liabilities common to practically all kinds of business and met with in almost all types of Balance Sheets, as, however different the operations of businesses may be, the assets and liabilities will be of a similar nature. Special types of liabilities may therefore be met with in certain kinds of businesses. Shipping companies often create Insurance Funds, and, instead of insuring the full value of their vessels with marine underwriters or insurance companies, carry some part of the risk themselves. This fund is then credited with the premiums which would normally be paid for the risk they retain, and charged with any losses they have to bear. If the company were to be wound up the amount of such fund would be available for the shareholders, but while the business continues it remains as a Reserve, and may, and will, be called upon to bear losses the company suffers. Staff Provident Funds also are met with from time to time and similar remarks apply to these as to insurance funds, except in those cases where pensions have been granted to retired employees, and contracts to pay these have been entered into. In such cases provision for such pensions would have to be made even when the company was wound up, and would have to be met out of such funds. Railway companies show several such funds in their accounts, e.g. "Compensation for Accident Fund," "Renewals Fund," "Works and

Equipment Maintenance Fund,"[1] all of which are designed to equalize charges against profits over a number of years, quite irrespective of the actual amounts paid out in any accounting period.

In the case of holding and subsidiary companies it is often found, as already stated, that liabilities from one to the other exist, and anything owing *must be shown* separately from any other liabilities (Companies Act, 1929, Section 125). If sums are owed to two or more companies then only the aggregate of such sums need be shown. If some of the subsidiary companies are owed by, and others owe to, the parent company, the debts must not be offset against one another, but the debts owing to the holding company recorded as an asset in its accounts, while the amounts owing to the others will be shown as a liability. This latter must be met whether or not the obligations of the other subsidiary or subsidiaries are discharged.

It must not be overlooked that this liability to a parent or a subsidiary company falls into quite a different category from ordinary liabilities. The amount is often in the nature of an advance and is not intended to be repaid at an early date. In the case of a subsidiary company it can well be that a debt is created when a dividend is declared in order to increase the profits of the parent company, and the latter makes an advance to the minor in order that the dividend may be paid.

Many companies when making an issue of Debentures undertake to create a Cumulative Sinking Fund to ensure the due repayment of the debt. These sinking funds operate in one of two ways—

(1) The company sets aside a sum from profits each year and invests a similar sum of money in interest-bearing securities, the interest from which is credited to the

[1] See also the Railway Company's Balance Sheet on pages 230–31.

fund and reinvested, so that at the date when the Debentures are repayable the proceeds of the realization of the investments provide the wherewithal to discharge the obligation. During the time the fund is being built up the Balance Sheet will show as a liability the actual balance of such fund at that moment, and, as already indicated on page 162, there will also appear an asset of corresponding amount consisting of the investments representing the fund.

(2) The principle in this case is the same in that a sum is annually allocated from the profits, but instead of the money equivalent to the amount so set aside being invested to earn interest, it is used to redeem Debentures either by purchasing them on the Stock Exchange or selecting those to be repaid by means of drawings. In either case the Debentures acquired are then cancelled. The interest which is saved in respect of the cancelled Debentures is also used to reduce the debt.

In both cases the full amount of the interest payable on the whole of the Debentures issued is charged to the Profit and Loss Account throughout the life of the loan. In the second case the items in the Balance Sheet in respect of the sinking fund will be as before, but instead of there being assets in the form of investments the liability to the debenture-holders is being steadily reduced.

The difference between the two methods will be clearly seen from the tables on page 188 giving details of the sinking fund created to repay £100,000 of 5 per cent Debentures in five years.

The amount which would be available for investment at the end of the fifth year (viz. £21,997 12s. 6d.) would not, of course, be invested, as the money would be required immediately to repay the Debentures. It would therefore be added to the proceeds of the sale of the investments.

TABLE I

WHERE AN ANNUAL ALLOCATION FROM PROFITS IS INVESTED AT 5 PER CENT INTEREST

Date	Debentures Outstanding	Allocations from Profit and Loss Account	Interest Earned on Investment	Amount Invested	Total Investment Earning Interest in Following Year
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1933—1st Jan.	100,000 0 0				
31st Dec.	100,000 0 0	18,097 10 0		18,097 10 0	18,097 10 0
1934—31st Dec.	100,000 0 0	18,097 10 0	904 17 6	19,002 7 6	37,099 17 6
1935—31st Dec.	100,000 0 0	18,097 10 0	1,854 19 10	19,952 9 10	57,052 7 4
1936—31st Dec.	100,000 0 0	18,097 10 0	2,852 12 4	20,950 2 4	78,002 9 8
1937—31st Dec.	100,000 0 0	18,097 10 0	3,900 2 6	21,997 12 6	100,000 2 2[1]

TABLE II

WHERE THE SINKING FUND IS APPLIED TO REDEEMING DEBENTURES BY ANNUAL DRAWINGS OVER FIVE YEARS

Date	Debentures Outstanding	Allocation from Profit and Loss Account	Interest Saved on Debentures Redeemed	Total Amount Applied in Redeeming Debentures	Total Debentures Redeemed to Date
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1933—1st Jan.	100,000 0 0				
31st Dec.		18,097 10 0		18,097 10 0	18,097 10 0
1934—1st Jan.	81,002 10 0				
31st Dec.		18,097 10 0	904 17 6	19,002 7 6	37,099 17 6
1935—1st Jan.	62,000 2 6				
31st Dec.		18,097 10 0	1,854 19 10	19,952 9 10	57,052 7 4
1936—1st Jan.	42,047 12 8				
31st Dec.		18,097 10 0	2,852 12 4	20,950 2 4	78,002 9 8
1937—1st Jan.	21,097 10 4				
31st Dec.		18,097 10 0	3,900 2 6	21,997 12 6	100,000 2 2

As Debentures are redeemed in the latter case the margin of security for the balance of the Debentures outstanding is progressively improved since the charge upon the assets to cover the issue will remain the same throughout. We occasionally find cases where Debentures are acquired through purchase and not cancelled, but held by the company as investments. The object of such a procedure is to enable the company to reissue them if and when the need

[1] The small discrepancy in the final figure is due to approximation of figures when working out the amount of interest.

to increase the cash resources arises. When Debentures are cancelled, the position of the remaining debenture-holders is improved, for the assets charged to them remain the same, but the sum owing is reduced, thus giving a larger margin of security. Where such a procedure is adopted, and later the company desires to raise more money, the existing debenture-holders would probably object to an increase in the secured indebtedness which is to rank *pari passu* with that owing to them, whereas if the company has acquired some of its Debentures and not cancelled them, the remaining debenture-holders are not directly affected by their reissue. If the conditions of the original issue provide that any Debentures purchased or repaid are to be cancelled the company must, of course, act accordingly.

Any Debentures of the company which have been acquired by the company itself and not cancelled must be shown separately as a liability in order to afford the fullest information to those interested in the affairs of the business.[1] This amount is really equivalent to a Debenture Redemption Fund and takes its place. When the whole of the Debentures have been redeemed by either method, the sinking fund is transferred to Reserve and belongs to the proprietors, who have discharged the debt out of moneys provided from the profits which have been made.

If Debentures are redeemable at a figure in excess of their nominal value then, though, as already mentioned, no liability in respect of the premium which has to be paid is shown in the accounts, yet any sinking fund which is created must be for such a sum as will provide the total sum repayable (i.e. the nominal amount of the Debenture plus the premium), as otherwise any difference between the amount of the sinking fund and the sum to be paid will have to be found out of the moneys used in financing the business.

[1] See item No. 14 in Model Balance Sheet in Appendix C.

Depreciation funds, which are operated in exactly the same way as sinking funds, have as their object the replacement of assets at the end of their useful life. Until such funds are utilized they appear in the Balance Sheet in the same manner as sinking funds, but, unlike them, they do not directly increase the Reserve, as the sum which has to be written off the asset is charged against the depreciation fund, thus extinguishing it. The investments held in respect of such depreciation funds are then available to raise the money necessary to replace the asset.

6. CONTINGENT LIABILITIES

At the close of any accounting period there may be certain transactions or operations which are not entirely completed and in respect of which certain liabilities might possibly arise. A very good example of such is seen in the case where bills receivable have been discounted, but the date of the maturity of the bill has not been reached, with the result that should the bill or bills be dishonoured when presented for payment, the holder will call upon the business to meet the bill, leaving it to recover from the acceptor. While there is always a possibility of such recovery taking place, it must not be overlooked that the dishonour of the bill indicates that the acceptor's financial position is not a very satisfactory one, and that loss of the whole or part of the amount may follow. It is usual, therefore, to show the facts by means of a footnote on the accounts, which can take the following form—

> There is a contingent liability in respect of bills under discount amounting to £ . . .[1]

If, as usually happens, the due dates of all or any of the bills have been reached before the date of the publication of the accounts and the bills have been met, it is customary to

[1] For an actual example, see the Balance Sheet on page 281.

add to the above statement the words "which have since run off" when all the bills have been paid, or "of which £... has since run off" when some bills remain which have not yet reached maturity.

Other examples of contingent liabilities are: (*a*) when a lawsuit is in progress and costs may have to be met should the dispute end unfavourably to the business; (*b*) the amounts of instalments to be paid in the future on a hire-purchase agreement; and (*c*) some of the investments held consist of partly paid shares. These are also the subject of notes.

Banks and other financial houses occasionally guarantee the due payment of bills which have been accepted by their customers, and such a guarantee is a contingent liability of the house giving it. Such organizations, however, generally include it as an actual liability under the heading of "Liability for engagements on behalf of customers," and since if they are called upon to meet the bills under the terms of their guarantee they will still have the right of recourse (for what it is worth) to their customer, they show on the assets side of their Balance Sheet an item of "Liabilities of customers for engagements on their behalf." While the amounts of the two items are the same, yet they cannot be regarded as offsetting one another seeing that the bank would have to meet the amount of the bill if necessary, and quite irrespective of whether their customer indemnifies it or not.

Another item of a special nature met with when there has been an issue of Redeemable Preference shares, and some of them have been redeemed, is "Capital Redemption Reserve Fund." This is necessitated by Section 46 (1*b*) and (1*c*) of the Companies Act, 1929, which provides that when Redeemable Preference Shares are paid off out of profits a Capital Redemption Reserve Fund equal in amount to the sum applied in redeeming the shares must be

created out of profits. The effect of this is that an amount of profits equivalent to the capital repaid is held over, thus replacing the capital moneys out of revenue, with the result that the repayment (often considerable in amount) does not affect in any way the actual finances of the company, but does, of course, reduce the amount of profits available for dividend.

CHAPTER IX

THE FORM OF PUBLISHED BALANCE SHEETS

1. A Model Balance Sheet
2. An Actual Balance Sheet
3. Balance Sheet of a Plantation Company
4. Balance Sheet of an Insurance Company
5. An Unusual Form of Balance Sheet
6. Balance Sheet of a Bank
7. Balance Sheet of a Railway Company
8. Useful Information as to Fixed Assets
9. Balance Sheet of a Non-trading Organization
10. Comparative Balance Sheets

Before we can proceed to deal with methods of criticism it is necessary to consider the various forms in which Balance Sheets are presented. The general format depends to a very large extent on the nature of the business, as upon this the relative importance of the various kinds of assets depends. In a manufacturing business for example, the most important assets must obviously be those which are fixed, as without such items as Premises, Plant, Machinery, etc., the business will be unable to operate. In such cases the fixed assets are usually placed first. The most important asset of a bank is however "Cash in Hand and at the Bank of England," out of which the demands of its customers can be met, for, if such an institution is unable to meet its customers' cheques, failure is bound to follow. We find therefore that in all such cases cash is the first item shown, and this procedure is generally followed by institutions engaged in financial operations, e.g. assurance and insurance companies, etc. Except for companies whose accounts must be presented in a form laid down by the legislature the only requirement, apart from the details already referred to, is that the Balance Sheet shall show the true state of the affairs of the company. Directors may therefore present their statement in any way which suits them, though there are certain conventions to which adherence is given.

1. A MODEL BALANCE SHEET

Appendix C shows a form of Balance Sheet which has been drawn not only to comply with the requirements of the Companies Act, 1929, but also to set out the details fully and clearly, and is further designed to enable proper criticism to be made. It should be noted that the Balance Sheet must be signed by not less than two of the directors (when there are two or more) or by the sole director (Section 129 (1)). The Balance Sheet of a banking company registered after 15th August, 1879, must still, however, be signed by the secretary or manager, and where there are more than three directors of the company, by at least three of these directors, and when there are only three or less then by all of them (Section 129 (2)).

There must be appended to the Balance Sheet the report to the members which has to be made by the auditor or auditors (Sect. 129 (1)). This report needs very careful perusal in case any qualifications or comments are made as to the affairs of the business. The usual form of such report reads as follows—

> We have audited the Balance Sheet of the AX Co. Ltd., dated 31st December, 1937, as set forth above. We have obtained all the information and explanations we have required. In our opinion such Balance Sheet is drawn up so as to exhibit a true and correct view of the state of the company's affairs according to the best of our information and the explanations given us and as shown by the books of the company.

On the other hand, with the exception of the first example the following qualifications (all of which are extracted from reports on published accounts) disclose a less satisfactory state of affairs, and the information given should cause the shareholders to take some action to protect their interests, or to make full inquiries into the actual position—

> The values of Shares in Subsidiary Companies included at their book values are in excess of their book values.

The value at which Motor Vehicles are included is in excess of their realizable value.

No depreciation has been written off the value of Mature Areas for the year under review.

We have insufficient information to indicate what part of the loss on the year's trading is attributed to the revised basis of stock valuation referred to in the Directors' Report.

Where a company is a holding company as defined on page 127, a statement must also be given stating how the profits or losses of subsidiaries have been dealt with so far as they concern the holding company, and in particular—

(*a*) To what extent provision has been made for the losses of a subsidiary company in the accounts of that company or of the holding company, or both; and

(*b*) To what extent the losses of a subsidiary company have been taken into account by the directors of the holding company in arriving at the profits or losses of the holding company as disclosed in its accounts.

This statement must be signed by the same directors who sign the Balance Sheet of the major company.

This applies in all cases whether the company is formed solely to hold a controlling interest in other and subsidiary companies, or is primarily a trading organization which does, in addition to its main activities, control one or more subsidiary companies.

It should be noted that it is not necessary to show in detail the actual profits or losses of a subsidiary or in what manner the directors of the holding company have dealt with the whole or any portion of such loss. Where there is any qualification in the report of the auditor on a subsidiary company, the above statement must contain particulars of the qualification.

Where the directors are unable to obtain the particulars necessary for the above requirements, a statement to

that effect signed by the same directors as before must be given.

The ramifications of holding companies have become very extensive, and difficulties are bound to arise in connection with sub-subsidiaries, i.e. a company which is a subsidiary of one which is in turn controlled by another. For example A Co. Ltd. holds a controlling interest in the B Co. Ltd., and this company holds, in turn, the whole of the shares in C Co. Ltd. The last-named company is a subsidiary of the B Co. Ltd. and a sub-subsidiary of the A Co. If the auditors of the C Co. Ltd. qualify their report and such qualification is duly included by the directors of the B Co. Ltd. in their statement to the holders of their shares, viz. the A Co. Ltd., it would appear that there is then no need for the directors of the A Co. to make any reference in their report to the qualification made in respect of the C Co. If, however, the shares of the C Co. are held by Co. B as the nominees of Co. A the position is probably different. For example, if the B Co. owned the shares of C Co. Ltd. at the time when A Co. acquired its shares, the C Co. is not a subsidiary of A Co.; but supposing the B Co. acquired the C Co.'s shares after the A Co. had obtained the majority of the shares in B Co., the question as to whether B Co. was a nominee would undoubtedly arise. If the A Co. had provided the B Co. with the funds necessary to acquire the shares, there would certainly be strong grounds for claiming that A Co. was their real owner through its nominees, the B Co. There is also apparently no need for any information to be given regarding the treatment of the profits or losses of sub-subsidiaries, and this leaves a loophole for abuse which may have to be dealt with by legislation at some future date.

Section 123 (2) also provides that there must *be attached* to the Balance Sheet a report by the directors with respect to the state of the company's affairs, the amount (if any)

which they recommend should be paid by way of dividend, and the sum (if any) they propose to carry to Reserve, and such Reserve must then be shown in the subsequent Balance Sheet.

In some cases directors create what are commonly known as "Secret Reserves," though a better term would be "Inner Reserves." If assets are depreciated below their true value an Inner Reserve comes into existence, and it would appear that the section quoted above would not then apply. The object of such Reserves is to strengthen the position of the organization and to enable temporary setbacks to be dealt with in such a way as to prevent any uneasiness in the minds of the public. Auditors always investigate these Inner Reserves carefully, and if they are satisfied that they are formed for the general well-being of the company and are administered by men of honour they will not comment upon them. In all other cases it is customary for the auditors to include in their report to the shareholders a reference to the existence of such Reserves, though no details as to how they have been created or the amount thereof need be disclosed. These Reserves commonly exist in the case of financial organizations, where public confidence might be shaken if profits shrank heavily or losses were made. It will be recalled that Secret Reserves were a prominent and pertinent matter before the Courts in the *Royal Mail Steam Packet* prosecution in 1931.

In the accounts submitted to the members of the company the directors must disclose the total fees or renumeration received by them, including a statement of fees received from any subsidiary company, though an exception is made in respect of the payments to managing directors for their services to the company, as their remuneration is really in the nature of a salary.

The model Balance Sheet gives the whole of the information which is required by the various sections of the

Companies Act, 1929, and for convenience these sections are enumerated in the margin. It is also prepared in a manner which clearly shows the position of the business—though it should be again emphasized that the legislature does not lay down any particular form of account. For example, the totals of the fixed and floating assets have been shown, and, though such is neither necessary nor compulsory, it is an advisable procedure, and one which is now being generally adopted, for comparison is facilitated and the nature of the assets more clearly shown. The exact amount of depreciation written off is not disclosed but this could be done as in the example on page 281.

The shares and debentures in subsidiary companies (items 31 and 32) are shown as a subdivision of the fixed assets. In the event of the winding-up of the parent company the subsidiaries would probably also cease to exist, and, if this happened, the amounts recoverable on the shares would be problematical. The sum owing on the Debentures might be received in full, particularly if they were secured by a first charge on the whole of the assets of the company issuing them. It might also be argued that the shares in allied and associated companies should be treated as fixed assets, as virtually they are, but on the other hand they are usually held in order to obtain some trading advantage, and they would undoubtedly be sold when such benefits ceased to be obtained.

In the model Balance Sheet the items shown in parentheses are those which might appear, and would, of necessity, have to be shown in certain cases. For example, where the practice of buying Debentures and holding them for reissue is adopted, the item numbered 14 would take the place of No. 13, as the latter would not exist, while item 46 would replace 45. The investments held against the Debenture Redemption Sinking Fund (item 45) should not be included as floating assets as they are held for the debenture-holders

and are not available for financing the business at all. Furthermore, where it is a condition of the issue of such Debentures that such a Fund shall be created to provide for the ultimate repayment of the loan, the actual investments would usually be held by the trustees for the debenture-holders, and such investments would increase year by year.

The example given discloses that three classes of shares have been issued, and it will be seen from the existence of the Capital Redemption Reserve Fund (item 22) amounting to £10,000, and the allocation of a similar sum from the Profit and Loss Account (item 23 (*c*)), that 10,000 of the 6½ per cent Redeemable Preference shares have been redeemed at par during the year 1936. If, as often happens, the figures at which each of these items stood at the close of the previous year had also been shown, the redemption could have been ascertained from the statement of the capital.

In the case under review the balance of the Profit and Loss Account (£84,075) shows the balance of profits available for allocation at the date of the Balance Sheet, and the directors' report will have made certain recommendations as to its disposal. It will be observed that in addition to having written off the balance of the expenses incidental to the last issue of capital, and transferring an amount of £10,000 to the Capital Redemption Reserve, a full year's dividend has been paid on the 6 per cent and 6½ per cent Preference shares. In the case of the last-named the dividend is calculated for six months on £50,000 and six months on £40,000, the redemption of part of the shares having apparently taken place on the 1st July, the first date mentioned as that on which redemption could take place. If we find that the board of directors is recommending the following appropriations of the available profit, viz.—

A transfer of £15,000 to Reserve;

Placing £10,000 to the Debenture Redemption Sinking Fund; and

The declaration of a dividend of 15 per cent on the Ordinary shares amounting to £26,250

there will remain a balance of profits to be carried forward of £84,075 – £15,000 – £10,000 – £26,250 = £32,825. Such a procedure will entail a payment from cash of £26,250, a fact which is not apparent from an inspection of the Balance Sheet alone. In order to make the Balance Sheet more informative and self-contained, many companies are now giving effect to the proposed allocations from profit on the face of the Balance Sheet itself, though it must be borne in mind that directors have not power to declare a dividend on Ordinary shares, but may only recommend the shareholders to do so. In practice, however, the shareholders always follow the suggestions of their Board in this respect, as they have no power to declare a dividend in excess of that recommended, and they are obviously not likely to propose a resolution that a lower rate should be paid.

If effect is given in the Balance Sheet to the recommendations, the item of Profit and Loss Account (No. 23) should then appear as follows—

	£	£	
Profit and Loss Account—			
Balance 1st January, 1936		15,000	
Add Profit for year		89,000	
		104,000	
Less Expenses of Issue of Capital written off	2,500		
,, Transfer to Capital Redemption Reserve	10,000		
,, Dividend paid on 6% Preference Shares	4,500		
,, Dividend paid on 6½% Preference Shares	2,925		
		19,925	
Balance available 31st December, 1936 .		84,075	
Less Proposed Transfer to Reserve . .	15,000		
,, Proposed Transfer to Debenture Redemption Sinking Fund	10,000		
,, Proposed Dividend at 15% on Ordinary Shares	26,250		
		51,250	
			£32,825

The item of Reserve (No. 21) would then be shown as follows—

	£	
Reserve—Balance at 31st December, 1936 .	45,000	
Add Proposed Transfer from Profit . .	15,000	
		£60,000

while the Debenture Redemption Sinking Fund would also be increased in a similar manner and an additional item would appear immediately after Sundry Creditors, worded as follows—

Proposed Dividend of 15% on Ordinary Shares .	£26,250

It will be appreciated that there is now no necessity for reference to the directors' report in order to ascertain how the company will stand financially after effect has been given to the recommendations made by the directors.

Most businesses find it advisable to carry forward a certain proportion of their profit in order that dividends may be equalized, i.e. the same rates of dividend can be maintained even though the subsequent year's trading is not so satisfactory, and the profits made be lower than usual. In the hypothetical case before us and ignoring the Debentures, the balance carried forward is sufficient to enable the dividends on the Preference shares to be paid for the following year, and a further allocation of £10,000 in respect of the Capital Redemption Reserve to be made as and when additional Redeemable Preference shares are acquired for cancellation. The sums required would be as follows—

	£	£	
Dividend of 6% Preference Shares for year		4,500	
Dividend of 6½% Preference Shares on £40,000 for six months . . .	1,300		
Dividend of 6½% Preference Shares on £30,000 for six months . . .	975		
		2,275	
Transfer to Capital Redemption Reserve		10,000	
			£16,775

still leaving a balance of £16,050. Such a procedure helps to ensure steady values for such shares on the Stock Exchange and thus gives confidence to investors.

We often find that when large profits have been made, but the directors are of the opinion that this is due to some abnormal condition which is not likely to recur in subsequent years, they declare a dividend at such a rate as in their opinion they will be able to maintain out of normal profits, and then, in order to enable the shareholders to receive some of the additional and abnormal profit, they declare a cash bonus distribution. Thus if a company declares a dividend of 15 per cent and a cash bonus of 10 per cent, shareholders actually receive 25 per cent in all, but the fact that 10 per cent is a bonus usually indicates that this is a special payment and not likely to be repeated. It is true that some companies make a habit of giving bonuses year after year, in which case shareholders expect these to continue and the object of the bonus is obscured. A larger rate of dividend should be given in such cases, and bonuses only be granted when special profits which are not likely to recur are made. Such bonuses are usually paid in cash, but occasionally, when it is inconvenient to make a large cash payment, bonus shares are allotted in lieu of a cash dividend. These shares increase the capital without in any way increasing profit-earning capacity and are not very satisfactory.

2. AN ACTUAL BALANCE SHEET

Let us now take an actual example of a Balance Sheet reproduced in its entirety, with the exception of the name of the company (pp. 204–5).

It has been selected as it is an outstanding example of an informative statement, even though totals are not shown for the various groups of assets, but, except that advances to subsidiaries are linked with the shareholdings in such

companies, assets of a similar nature will be found next to one another. This grouping of the different items with regard to subsidiaries is not necessarily due to the advances being regarded as fixed assets, but rather to enable the note as to the nature of the assets of the subsidiaries to be appended. This note is not a legal necessity, but is intended to ensure that the shareholders are not misled as to the position, for if the bulk of the assets are of an intangible nature their value depends entirely on the profits which can be earned, and the failure to show a surplus means a loss to the shareholders of the parent company. If the assets had consisted of tangible items, such as plant and machinery, something would have been received from their sale on the liquidation of the subsidiary. This example illustrates the important difference existing between tangible and intangible assets.

Where the actual Balance Sheets of the subsidiaries are not circulated with that of the parent company, the procedure adopted in the above Balance Sheet has much to recommend it, and is an alternative method which might well be adopted. It suffers, however, as against the procedure of circulating the Balance Sheets of the subsidiaries in that it gives no information as to the profits. It will be seen that holdings in, and advances to, subsidiaries constitute the largest individual asset, and this item is approximately 28·7 per cent of the total assets—quite a substantial proportion.

The Balance Sheet is also interesting in that it illustrates the disclosure of a proposed dividend and hence shows the actual balance of profit carried forward (items 4 and 5). It will be appreciated therefore that the cash at bank and in hand will be reduced from £7862 15s. 10d. to £3568 1s. 0d. early in April when the dividend was paid.

The use to which the Reserve is put is likewise very clearly set out. The profit made on the sale of foreign

THE X Y

BALANCE SHEET AS

Liabilities	£	s.	d.	£	s.	d.	£	s.	d.
1. SHARE CAPITAL									
Authorized— 1,500,000 Shares at 2s. each				150,000	0	0			
Issued— 1,073,685 Shares of 2s. each fully paid . . .							107,368	10	0
2. RESERVE									
Premium on Shares issued .				10,131	13	9			
Transfer from Profit and Loss Account, being Profit on Sale of Foreign Rights .				5,000	0	0			
				£15,131	13	9			
Deduct—									
(1) Expenses in connection with Capitalization of Reserves, and conversion into Public Company and obtaining Permission to Deal .	1,659	2	0						
(2) Removal and Travelling Expenses of Directors and Officers and other Expenses incidental to the reorganization of the Company . .	4,235	2	7						
(3) Purchase of Patents and Patent Rights, etc., written off . .	4,953	1	9						
(4) Loss on an Investment written off . .	1,016	13	0	11,863	19	4			
							3,267	14	5
3. CREDITORS AND RETURNABLE DEPOSITS							21,693	1	11
4. FOURTH INTERIM DIVIDEND in respect of the year ended 31st March, 1930, declared 3rd April, 1930 . . .							4,294	14	10
5. PROFIT AND LOSS ACCOUNT BALANCE . . .							13,051	2	10
Note. The Company has granted Guarantees in respect of Bank Advances— (*a*) To a Subsidiary Company to the extent of £2500 (since withdrawn). (*b*) To another Company to the extent of £1500.									
							£149,675	4	0

CO. LTD.

AT 31ST MARCH, 1930

Assets	£	s.	d.	£	s.	d.	£	s.	d.
1. PATENTS AND PROCESSES at cost							4,440	0	7
2. MACHINERY, PLANT, FACTORY EQUIPMENT, AND FURNITURE as revalued by Directors, 31st March, 1929 . .				11,540	0	0			
Additions, less Sales, for year to date				2,722	12	3			
				14,262	12	3			
Less Depreciation . .				1,457	17	9			
							12,804	14	6
3. SUBSIDIARY COMPANIES .									
(1) Shareholdings at Cost .				26,782	10	11			
(2) Advances . . .				16,119	0	4			
							42,901	11	3
Note. The Assets of the Subsidiary Companies consist mainly of Goodwill and Patent Rights.									
4. STOCKS as certified by Company's officials (including Machines lent to Customers)							37,631	5	1
5. SUNDRY DEBTORS, LOANS, AND PAYMENTS IN ADVANCE, *less* Reserve for Bad Debts and Discounts							39,219	2	0
6. SUMS DUE BY DIRECTORS AND OFFICERS—									
(1) Advances outstanding 31st March, 1929 .	1,000	0	0						
Advances during year .	429	13	9						
	1,429	13	9						
Less Repayments . .	1,429	13	9						
(2) On Current Account. . *Note*. The maximum amount outstanding during the year was £3,257 1s. 6d.				2,965	4	6			
(3) Loan to an Officer for the Purchase of Shares in Company (since repaid)				492	13	6			
							3,457	18	0
7. CASH AT BANK AND IN HAND							7,862	15	10
8. BRANCH EXPENDITURE CARRIED FORWARD . . .							1,357	16	9
							£149,675	4	0

rights is correctly treated as a capital profit and added to the Reserve, while extraordinary and non-recurring expenditure having no real connection with the trading activities of the company can be and is charged against it.

The Balance Sheet discloses that there have been two types of indebtedness on the part of directors, viz. (*a*) for definite advances, and (*b*) sums due on what are termed "Current Account." The exact nature of this latter item is not clear, but the amount appears to fluctuate materially from time to time. There is also an example of a loan to an officer to purchase shares, which, however, has been repaid since the date on which the Balance Sheet was made up.

The "Branch Expenditure carried forward" would appear to be a case of Deferred Revenue Expenditure—and would apparently represent expenses incurred in connection with the establishment of a branch which has not yet commenced operations. If this be so then this item will be written off in a subsequent year or years as trading profits are made by such branch. The statement regarding contingent liabilities should also be noted.

3. BALANCE SHEET OF A PLANTATION COMPANY

It will be recalled that stock-in-trade should be valued at the cost or replacement price, whichever be the lower, in order that all probable and possible losses be taken into account, but no possible or probable profits, and this result ensures that only profits made, or on the other hand loss incurred, in the period covered by the accounts is brought in. As already stated, companies concerned with plantations, e.g. rubber, tea, etc., usually present their accounts in such a manner that while they nominally cover a period of time, they actually cover a "crop." This result is achieved by bringing the stocks unsold at the *date* of the Balance Sheet into account at the prices realized on their sale between the date of the statement and the time when it is circulated

to the shareholders (usually the date of the auditors' report), with an estimate of the amount which will be obtained from any unsold goods then remaining. This procedure means that the profit on sales made subsequent to the close of the financial period is regarded as part of the income of that period. Actually in practice the account still covers a period of, say, one year, but the year in which the profit arises is not coincident with the year covered by the accounts.

The following is an example of a Balance Sheet of such a company and the wording of the item of "Rubber on hand unsold at prices since realized, and estimate for balance" gives the information referred to above.

The following points are also of interest and should be noted, viz.—

1. The capitalization of the Cost of "Upkeep of Immature Areas during 1934–35." Expenditure on that part of the Estate not in bearing (i.e. not yet in a condition to earn revenue) is always regarded as part of the capital expenditure, and the reports of the plantation managers and visiting agents always clearly state the acreage "in bearing" or "mature," and that not yet suitable for cropping. All expenses directly charged to the latter, and a proportion of all plantation overhead expenses is treated as of a capital nature. As will be seen, depreciation is subsequently written off the mature areas.

2. "Advance Expenditure carried forward." While the exact nature of this is not known, it obviously represents Deferred Revenue Expenditure, the full benefit of which has not yet been obtained.

3. "Taxation Reserve." This is an amount set aside to meet claims for taxes, and while the actual amount of the liability is unknown at this time yet the item must be regarded as a current liability.

THE E.S. RUBBER ESTATES, LTD.

Balance Sheet as at 30th June, 1935

	£	s.	d.	£	s.	d.
Share Capital						
Authorized—						
5,000,000 Shares of 2s. each	500,000	0	0			
Issued—						
3,538,786 Shares of 2s. each, fully paid .				353,878	12	0
Taxation Reserve				10,250	15	10
Leave Pay and Passages of Staff . . .				1,111	9	8
Sundry Creditors.				3,649	0	4
Dividends Unclaimed				196	2	10
Profit and Loss Account				19,337	1	9
				£388,423	2	5

	£	s.	d.	£	s.	d.
Cost of Estates and Expenditure thereon, less amounts written off, as per last Balance Sheet				270,801	1	10
Upkeep of Immature Areas during 1934–5. .				2,378	10	1
				273,179	11	11
Less Depreciation of Mature Areas . .				5,000	0	0
				268,179	11	11
Buildings and Machinery at Cost less amounts written off as per last Balance Sheet . .	7,827	18	8			
Added during year	38	9	0			
				7,866	7	8
Vehicles, Furniture, and Stock of Materials, etc., as per Manager's Valuation				3,524	1	0
Rubber on hand unsold at prices since realized and estimate for Balance				23,343	16	4
Advance Expenditure carried forward . .				354	6	0
Sundry Debtors				690	3	3
Investments at Cost, less amounts written off—						
4193 A.D. Estates Agency, Ltd., Shares of £1, each fully paid.	2,392	18	6			
£1000 B.T. Rubber Estates, Ltd., 8% Debenture Stock, fully paid	1,000	0	0			
				3,392	18	6
(Estimated Valuations at 30th June, 1935=£5243)						
Cash at Bankers and in hand				81,071	17	9
				£388,423	2	5

Note. The Estate Balances at 30th June, 1935, have been converted into sterling at the equivalent of 7·20 guilders to £.

AUDITORS' REPORT

We report that we have examined the above Balance Sheet with the books and vouchers of the Company and with the certified accounts received from the local auditors in S . . . We have received all the information and explanations we have required, and in our opinion the above Balance Sheet is properly drawn up so as to exhibit a true and correct view of the state of the Company's affairs according to the best of our information and explanations received by us and as shown by the books of the Company.

4. "Leave Pay and Passage of Staff." This item represents an actual provision for a liability which will become payable at some future time. Since leave in Europe on pay, and a passage home at end of a tour of service, is a provision of the agreements of the European staff, it is a wise procedure to make allowance for this during the years the staff are serving at the plantations.

5. The form of the auditors' report is one commonly used when local auditors deal with the accounts abroad.

4. BALANCE SHEET OF AN INSURANCE COMPANY

Our next example is that of an insurance company and here we find three distinctive features, viz.—

1. The form of accounts is a statutory one.
2. There are a number of Revenue Accounts, each showing the results of a section of the company's business; and
3. These Revenue Accounts differ from those normally seen in practice, in that the income is shown on the debit side, while the outgoings are on the credit side, whereas they usually appear on the opposite sides.

LEASEHOLD REDEMPTION ACCOUNT

Revenue Account for the Twelve Months ended 31st December, 1935

Dr. *Cr.*

	£	s.	d.		£	s.	d.
Fund at Beginning of Year	5,979	6	11	Policies Matured			
Premiums	761	19	2	Surrenders	6,845	12	0
Interest on Fund . £260 2 7				Commissions			
Less Tax . . 57 18 0				Expenses of Management	5	0	0
	202	4	7	Transfer to Profit and Loss Account	92	18	8
	£6,943	10	8		£6,943	10	8

Fire Insurance Account

Revenue Account for the Twelve Months ended 31*st December,* 1935.

Dr.		£	s.	d.	*Cr.*		£	s.	d.
Fire Insurance Fund at Beginning of Year—					Claims Paid (*Less* Recoveries) .		5,207	0	11
Reserve for Unexpired Risks	£7,535 3 0				Commission		3,073	8	0
Reserve for Outstanding Claims	350 0 0				Expenses of Management .		5,086	10	2
		7,885	3	0	Contributions to Fire Brigades.		138	16	11
Premiums (*Less* Reinsurances). . . .		20,273	1	3	Transfer to Profit and Loss Account		5,799	11	1
Interest on Fund .	£329 15 5				Fire Insurance Fund at End of Year, as per Balance Sheet—				
Less Tax . .	73 8 1				Reserve for Unexpired Risks being 40% of Premium Income for Year .	£8,109 4 6			
		256	7	4	Reserve for Outstanding Claims	1,000 0 0			
							9,109	4	6
£		28,414	11	7	£		28,414	11	7

Accident Insurance Account

Revenue Account for the Twelve Months ended 31*st December,* 1935

Dr.		£	s.	d.	*Cr.*		£	s.	d.
Accident Insurance Fund at Beginning of Year—					Claims Paid (*Less* Recoveries) .		2,674	15	0
Reserve for Unexpired Risks	£3,566 13 8				Commission		1,636	1	3
Reserve for Outstanding Claims .	1,275 0 0				Expenses of Management .		2,396	6	7
		4,841	13	8	Transfer to Profit and Loss Account.		3,022	10	3
Premiums (*Less* Reinsurances) .		9,550	18	6	Accident Insurance Fund at End of Year, as per Balance Sheet—				
Interest on Fund .	£202 9 9				Reserve for Unexpired Risks, being 40% of Premium Income for Year	£3,820 7 5			
Less Tax . .	45 1 5				Reserve for Outstanding Claims.	1,000 0 0			
		157	8	4			4,820	7	5
£		14,550	0	6	£		14,550	0	6

Employers' Liability Insurance Account

Revenue Account for the Twelve Months ended 31st December, 1935

Dr.	£	s.	d.	*Cr.*	£	s.	d.
Employers' Liability Insurance Fund at Beginning of Year— Reserve for Unexpired Risks £125,091 4 3 Reserve for Outstanding Claims 250,000 0 0	375,091	4	3	Payments under Policies (*less* Recoveries)	247,545	1	7
Premiums (*less* Reinsurances)	355,894	17	2	Commission	26,833	5	11
Interest on Fund . £15,687 1 8 *Less* Tax . 3,491 16 1	12,195	5	7	Expenses of Management (*less* Accident Prevention Sales and Fees)	47,921	8	6
Transfer from Profit and Loss Account	21,476	7	10	Employers' Liability Insurance at End of Year, as per Balance Sheet— Reserve for Unexpired Risks, being 40% of Premium Income for Year £142,357 18 10 Total estimated Liability for Outstanding Claims 300,000 0 0	442,357	18	10
	£764,657	14	10		£764,657	14	10

Motor Insurance Account

Revenue Account for the Twelve Months ended 31st December, 1935

Dr.	£	s.	d.	*Cr.*	£	s.	d.
Motor Insurance Fund at Beginning of Year— Reserve for Unexpired Risks £196,787 15 7 Reserve for Outstanding Claims 100,000 0 0	296,787	15	7	Claims Paid (*less* Recoveries) .	232,577	3	6
Premiums (*less* Reinsurances)	535,809	18	6	Commission	79,694	18	8
Interest on Fund . £12,412 5 8 *Less* Tax . . 2,762 17 8	9,649	8	0	Expenses of Management . .	128,560	7	3
				Transfer to Profit and Loss Account	67,090	13	3
				General Insurance Fund at End of Year, as per Balance Sheet— Reserve for Unexpired Risks being 40% of Premium Income for Year . £214,323 19 5 Reserve for Outstanding Claims 120,000 0 0	334,323	19	5
	£842,247	2	1		£842,247	2	1

General Insurance Account

Revenue Account for the Twelve Months ended 31st December, 1935

Dr.		£	s.	d.	*Cr.*		£	s.	d.
General Insurance Fund at Beginning of Year—					Claims Paid (*less* Recoveries)		99,509	15	1
Reserve for Unexpired Risks	£60,526 19 0				Commission		13,254	14	0
Reserve for Outstanding Claims	45,000 0 0	105,526	19	0	Expenses of Management		31,714	14	3
Premiums (*less* Re-insurances)		178,875	19	6	Transfer to Profit and Loss Account		11,804	7	0
Interest on Fund	£4,413 7 1				General Insurance Fund at End of Year, as per Balance Sheet—				
Less Tax	982 7 5	3,430	19	8	Reserve for Unexpired Risks, being 40% of Premium Income for Year	£71,550 7 10			
					Reserve for Outstanding Claims	60,000 0 0	131,550	7	10
		£287,833	18	2			£287,833	18	2

Profit and Loss Account

For the Twelve Months ended 31st December, 1935

Dr.		£	s.	d.	*Cr.*	£	s.	d.
Balance of last year's Account		50,082	9	5	Transfer to General Reserve Fund	50,000	0	0
Interest not credited to other Accounts	£15,059 7 8				Staff Pension Trustees	15,000	0	0
Less Income Tax	3,352 1 8	11,707	6	0	Bad Debts Incurred and Reserved	332	2	3
Transfer from—					Written off Furniture, Machinery, etc.	3,458	7	0
Leasehold Redemption Account	92 18 8				Leasehold Redemption Reserve	957	2	7
Fire Insurance A/c	5,799 11 1				Income Tax Paid and Reserved	5,370	10	5
Accident Insurance Account	3,022 10 3				Audit Fees and Legal Charges	1,963	13	5
Motor Insurance Account	67,090 13 3				Directors' Fees	3,267	17	0
General Insurance Account	11,804 7 0				Bonus to Staff on 21st Birthday of Association	2,033	1	9
	87,810 0 3				Balance to Balance Sheet	52,428	18	10
Less Transfer to Employers' Liability Insurance Account	21,476 7 10	66,333	12	5				
Profit by Sale of Investments		6,688	5	5				
		£134,811	13	3		£134,811	13	3

Balance Sheet

31st December, 1935

Liabilities	£	s.	d.	£	s.	d.
Shareholders' Capital				–	–	–
Fire Insurance Fund	9,109	4	6			
Accident Insurance Fund . . .	4,820	7	5			
Employers' Liability Insurance Fund .	442,357	18	10			
Motor Insurance Fund . . .	334,323	19	5			
General Insurance Fund . . .	131,550	7	10			
				922,161	18	0
General Reserve Fund . . .				350,000	0	0
Freehold Property Reserve . .				10,000	0	0
Leasehold Property Reserve . .				7,000	0	0
Sundry Creditors, including Agents and Reserves				54,046	14	2
Due to Reinsurers . . .				27,837	11	1
Reserved for Income Tax . .				2,782	13	8
Balance on Profit and Loss Account as at 31st December, 1935 . .				52,428	18	10
Carried forward				1,426,257	15	9

Note. There is a Contingent Liability in respect of Uncalled Capital on Shares held in Public Companies amounting to £64,805 6s. 4d.

Assets	£	s.	d.	£	s.	d.
Investment at or below Market Price—						
Mortgages—						
Freehold Property in U.K. .	10,883	0	0			
Freehold Property out of U.K. .	16,320	16	8			
Loans on Parochial and other Public Rates .	10,000	0	0			
Deposit with the High Court .	35,017	3	0			
British Government Securities .	363,047	2	3			
Municipal and County Securities (U.K.) .	12,778	16	0			
Public Boards .	11,171	1	4			
Indian and Colonial Government Securities . .	157,061	9	10			
Indian and Colonial Municipal Securities . .	49,863	14	8			
Foreign Government Securities .	25,903	3	8			
Railway and other Debentures and Debenture Stock—Home and Foreign . .	36,446	3	11			
Railway and other Preference and Guaranteed Stocks—Home and Foreign .	22,763	4	6			
Ordinary Stocks and Shares .	194,769	13	11			
Bank Stock .	950	0	0			
Investment in Motor Mutual Insurance Assoc. Ltd. . .	413	4	7	947,388	14	4
Market Value, 31/12/1935, £1,118,921 8s. 3d.						
Freehold Land and Building at cost				52,143	12	9
Leasehold Property at cost . .				22,885	19	9
Freehold Ground Rents . .				2,528	12	7
Leasehold Ground Rents . .				524	0	5
Agents and Sundry Debtors, *less* Reserves				103,513	13	7
Due from Reinsurers . . .				20,501	17	8
Office Furniture and Machinery at cost *less* Depreciation . .				17,477	5	3
Interest Accrued, but not paid .				5,792	7	7
Carried forward				1,172,756	3	11

BALANCE SHEET

31*st December*, 1935 (contd)

	£	s.	d.		£	s.	d.
Brought forward	1,426,257	15	9	Brought forward	1,172,756	3	11
				Outstanding Dividends and Rents	348	3	6
				Deposit with New Zealand Government	40,080	3	2
				Deposit with Colonial Municipality	2,000	0	0
				Loans against Securities deposited	22,050	0	0
				Loans on Life Policies within Surrender Values	54,000	0	0
				Cash at Bankers and in Hand—			
				On Deposit Accounts . . £42,155 18 0			
				On Current Accounts . . 91,492 19 10			
				In hand at Head Office and Branches 1,374 7 4			
					135,023	5	2
£	1,426,257	15	9	£	1,426,257	15	9

We certify that in our belief the Assets set forth in the above Balance Sheet are in the aggregate fully of the value stated therein. The Stock Exchange Securities are taken at or below market price as at 31st December, 1935, and such values are certified by the Association's Brokers.

No part of any Fund has been applied directly or indirectly for any purpose other than the class of business to which it is applicable.

In accordance with Sect. 126 of the Companies Act, 1929, we hereby state that the profits from the M.M. Insurance Association Limited, have not been credited to the above Account.

S. M. (*Chairman*)
D. D. G. (*Managing Director*)
S. G. M. (*Secretary*)

11*th March*, 1936.

Auditors' Report to the Members

We have audited the above Balance Sheet dated 31st December, 1935, and have obtained all the information and explanations we have required. In our opinion such Balance Sheet is properly drawn up so as to exhibit a true and correct view of the Association's affairs according to the best of our information and the explanations given to us and as shown by the books of the Association, and returns from the Foreign Branches, certified by their local auditors or managers. We have verified the investments and the cash at the Banks.

No part of any Fund has been applied directly or indirectly for any purpose other than the class of bnsiness to which it is applicable.

A part of the investments has been specifically deposited under local laws in various places out of the United Kingdom as security for holders of Policies there issued.

G. L. & SONS,
Chartered Accountants,
Auditors.

LONDON.
11*th March*, 1936.

Inspection of the Revenue Accounts discloses that each year an amount is carried forward equal to 40 per cent of the premiums received during the year. The Reserve, or Fund, so created plus any other sums considered necessary, is available to meet claims which will, or may, arise on policies still in force and on which some time has yet to go before the risk runs off. This amount is brought into the next year's Revenue Account. The sums actually paid in respect of claims are also distinguished from the estimates of the money required to meet those not yet settled. This

last-named figure is largely an estimated one, as in many cases the exact amount necessary to settle claims intimated but not yet settled, is unknown, particularly in the Employers' Liability Department. After making these Reserves the balance on these Revenue Accounts shows the profit or loss made by the Department and such balances are then carried to the general Profit and Loss Account, which, like the Revenue Accounts, is reversed.

Life assurance companies are in a different position to companies transacting other forms of insurance, as they know the policy will mature at some date in the future, and hence must accumulate out of the premiums received and interest earned a sum sufficient to meet claims as they occur. The balance of a Life Revenue Account, prepared on the lines set out above, will not therefore disclose the profit. Such companies can only decide upon their position by ascertaining the amount of funds which should be in hand, and which, with further premiums and interest to be received, will place them in the position to pay the claims when policies mature either through the policy-holder dying or attaining the age at which the amount assured has to be paid. Legislation requires such an assessment of the position to be made at least once in every five years, though some companies do it at more frequent intervals of time. When done at the statutory intervals the procedure is known as the "Quinquennial Valuation." The amount shown as necessary by the actuarial valuation is then set against the actual accumulated funds, and the surplus (profit) or deficit found. Until such a valuation takes place, life assurance companies carry forward the whole balance of the Life Revenue Account.

The general Profit and Loss Account in addition to the transfers referred to above includes all items of income arising from sources not specifically allocated, and is charged with the general administration expenses. In the case under review it was found necessary to charge the Profit and Loss

Account with a sum of £21,476 7s. 10d. necessary to ensure that the Employers' Liability Department will be in a position to meet its actual and estimated obligations.

The Balance Sheet is particularly interesting in that there is no actual share capital, the company in question being a mutual one, and thus all the policy-holders are members of the company. The working capital is obtained from the premiums paid to it, and any surplus from these has been used to extend the company's business, although the profits belong to the members. This company, founded in 1914, had a premium income in that year of £490 and on 31st December of the same year a surplus of net assets of £64. In 1935 the premium income was £1,101,167 and surplus net assets were no less than £1,341,167. When profits are no longer required for extension of the business they are distributed to policy-holders, either in the form of a bonus on the policy, or more often in reduced premiums.

The nature of the assets should be noted and the classifications of the investments studied. The bulk of these are gilt-edged, and, while not carrying very high rates of interest, can be realized easily and quickly and without any heavy loss should extra funds become necessary to meet any heavy claims that may arise. The contingent liability recorded is one often met with in financial organizations holding investments, as some of these may not be fully paid and in respect of which calls may be made when necessary to the extent of any capital uncalled. The accounts as shown were supported by schedules showing the exact nature of the securities held and their market value at the date of the accounts, and thus it can be ascertained upon which shares there is this contingent liability for uncalled capital, and hence the likelihood of some or all of the moneys being demanded. This presentation of schedules of details is a very desirable procedure and one which could be adopted more often with advantage to all concerned.

5. AN UNUSUAL FORM OF BALANCE SHEET

We have already learned that, provided the Balance Sheet gives the essential information laid down as necessary in the Companies Act, 1929, the exact form of the statement can be settled by the directors. It will be appreciated that one can "overload" the Balance Sheet with too much detail, and in so doing tend to confuse rather than clarify the position. Our next example is interesting therefore in that it shows the Balance Sheet in the form of a succinct statement which complies with the requirements of the Act, and then supports and explains the composition of each item by a series of schedules, which enables all the details which are necessary and desirable to be readily seen, and their composition understood, a process rendered easy by the numbering of the items in the Balance Sheet to correspond with the numbers on such schedules. The auditors also draw attention to these schedules in their report to the shareholders.

GENERAL REFRACTORIES, LTD.

Balance Sheet, showing the Company's position at 31st December 1933

LIABILITIES	£	s.	d.	ASSETS	£	s.	d.
1. Nominal Capital—300,000 Shares of 10s. each £150,000 0 0				11. Freehold and Leasehold Land, Quarries, Railway Sidings, Mines, Buildings, Plant and Machinery . .	109,432	16	1
2. Issued Capital—240,000 fully-paid Shares of 10s. each . .	120,000	0	0	12. Rolling Stock (Railway Wagons, etc.) . .	9,905	6	9
3. Debenture (secured on Assets) . . .	50,000	0	0	13. Endowment Assurances (Premiums paid) .	2,355	3	4
4. Debenture Bonds (ditto).	5,000	0	0	14. Investments . .	60,583	4	10
5. Income Bonds . .	10,757	7	6	15. Trade Marks, Brands, Formulae, etc. .	4,750	0	0
6. Accounts Payable . .	29,884	11	8	16. Accounts Receivable .	55,417	10	11
7. Charges accrued (provisions for) . .	2,212	3	9	17. Cash in hand, Bank, and Transit . . .	2,533	5	1
8. Bills of Exchange Payable	7,945	13	5	18. Stock-in-Trade . .	17,795	2	6
Total Liabilities. .	225,799	16	4	19. Duty, etc., paid on Share Capital . . .	1,500	0	0
9. Sundry Reserves . .	10,372	3	3				
10. Credit Balance from Profit and Loss Appropriation Account . . .	28,100	9	11				
	£264,272	9	6		£264,272	9	6

REPORT OF THE AUDITORS TO THE MEMBERS OF GENERAL REFRACTORIES, LTD.

We have audited the Balance Sheet of your Company, dated 31st December, 1933, as above set forth, and have obtained all the information and explanations we have required. The profits shown are subject to payment of Income Tax and Commissions.

The Stock-in-trade has been valued by the Company's own Staff and detailed lists have been submitted to us. Particulars of the Investments in Subsidiary Companies, and the basis on which various Assets have been valued, are shown in the statements annexed to the Balance Sheet and appearing overleaf. Subject to the foregoing, we certify that in our opinion the above Balance Sheet is properly drawn up so as to exhibit a true and correct view of the state of the Company's affairs, according to the best of our information and the explanations given us and as shown by the books of the Company.

K. W. AND G.,
Chartered Accountants.

SHEFFIELD.
12th March, 1934.

STATEMENTS REQUIRED BY THE COMPANIES ACT, 1929

Section 126 (subsection 1) of the Companies Act, 1929.

In accordance with the requirements of this section, which relates to Subsidiary Companies, the Directors of this Company report that the aggregate of the results shown by those Subsidiary Companies whose accounts have become available since the date of the last previous Annual Report of this Company is a small loss which has not been dealt with in the accounts attached hereto, all losses and profits having been carried forward on the account of the companies concerned.

Section 126 (subsection 2) of the Companies Act, 1929.

In accordance with the requirements of this section, the Directors of this Company state that the Auditor's Report on the Annual Accounts of one small Subsidiary Company contains a remark to the effect that the leases and wayleaves are of doubtful value. As this particular Company is not indebted to General Refractories, Ltd., whose investments in it stands valued at the sum of £1, the matter is of no importance.

Section 128 (subsection 1) of the Companies Act, 1929.

In accordance with the requirements of this section, the Directors of this Company state that one of their number has during the year received a "Director's Fee" of £25 from a Company subsidiary to this Company.

(Signed)
R. W. M. } *Two Directors*
G. S. } *of the Company.*

General Refractories, Ltd.

Detailed Accounts, 1933

			£	s.	d.
4.	Debenture Bond Account—				
	As per 1932 Balance Sheet		3,600	0	0
	Issued durng 1933		1,400	0	0
	To Balance Sheet. . . .		£5,000	0	0
5.	Income Bond Account—				
	Issue of Income Bonds as per last accounts		10,000	0	0
	Add Provisions for Premium on redemption (as at 31st Dec., 1932)	£525 0 0			
	Add further provision	100 0 0			
			625	0	0
	Add Interest accrued		132	7	6
	To Balance Sheet. . . .		£10,757	7	6
6.	Accounts Payable—				
	Trade Creditors		23,183	17	9
	Subsidiary Companies		3,276	16	9
	Associated Companies		2,801	0	4
	Staff Ledger Balances		622	16	10
	To Balance Sheet. . . .		£29,884	11	8
9.	Sundry Reserves—				
	Balance of Capital Reserve Account (No. 9 (*a*))		2,114	7	11
	Balance of Bad Debts Account (No. 9 (*b*))		402	11	5
	Balance of Depreciation Account (No. 9 (*c*))		7,500	0	0
	Balance of Contingencies Account (No. 9 (*d*))		355	3	11
	To Balance Sheet. . . .		£10,372	3	3
9 (*a*).	Capital Reserve Account as at 31st Dec., 1932.		2,563	7	11
	Less Transferred to Account No. 14.		449	0	0
	To Sundry Reserves (No. 9) . .		£2,114	7	11
9 (*b*).	Bad Debts Reserve Account—				
	Provided in 1932 Report		1,500	0	0
	Less Amount absorbed in 1933		1,097	8	7
	To Sundry Reserves (No. 9) . .		£402	11	5
	Note. *A further £1000 is provided in the annexed report.*				
9 (*c*).	Depreciation Reserve Account—				
	As at 31st Dec., 1932		5,000	0	0
	Add further provision as per 1932 Report, etc.		2,500	0	0
	To Sundry Reserves (No. 9) . .		£7,500	0	0
	Note. *A further £2500 is provided in the report annexed.*				
9 (*d*).	Contingencies and Redemption Reserve—				
	As at 31st Dec., 1932		210	19	3
	Add further provisions as per 1932 Report and Sundries . .		2,122	1	0
			2,333	0	3
	Less absorbed during 1933		1,977	16	4
	To Sundry Reserves (No. 9) . .		£355	3	11
	Note. *This balance will be transferred to the new General Reserve Account.*				

General Refractories, Ltd. (contd.)

Detailed Accounts, 1933

			£ s. d.
9 (*e*). Investments and Advances Reserve Account—			
Provided in 1932 Report			2,500 0 0
Less amount absorbed in 1933			2,500 0 0
			— — —
Note. *This account is now closed.*			
9 (*f*). Reorganization Expenses Account—			
As at 31st Dec., 1932			472 5 1
Less written off from Account No. 10			472 5 1
			— — —
Note. *This Account is now closed.*			
10. Profit and Loss Appropriation Account—			
Credit Balance from 1932 Accounts			13,171 15 10
Less Appropriations as per 1932 Report—			
To Bad Debts Reserve (9*b*)		£1,500 0 0	
,, Depreciation Reserve (9*c*)		2,500 0 0	
,, Reorganization Expenses (9*f*)		472 5 1	
,, Contingencies Reserve (9*d*)		2,000 0 0	
,, Investments and Advances Reserve (9*e*)		2,500 0 0	
,, Trade-marks Account (15)		250 0 0	
			9,222 5 1
			3,949 10 9
Profit and Loss Account, 1933—			
Gross Profit from Trading and Revenue Account, 1933		£30,584 17 6	
Less Interest Charges	£3,922 17 2		
,, Directors' Fees	50 0 0		
,, Provision for Bond Redemption	100 0 0		
,, Income Tax	561 1 2		
		4,633 18 4	
,, Net Profit for Year		£25,950 19 2	
Deduct 2% Interim Dividend		1,800 0 0	
			24,150 19 2
To Balance Sheet			£28,100 9 11
11. Land, Property, and Plant Account—			
As at 31st Dec., 1932 (at Valuation)			25,104 19 4
Ditto (at Cost)		£82,009 0 10	
Additions during 1933, at Cost		2,318 15 11	
			84,327 16 9
To Balance Sheet			£109,432 16 1
12. Rolling Stock Account—			
As at 31st Dec., 1932, at Cost			9,110 15 11
Additions during 1933 at Cost			794 10 10
			£9,905 6 9

GENERAL REFRACTORIES, LTD. (contd.)

Detailed Accounts, 1933

					£	s.	d.
14.	INVESTMENT ACCOUNT—						
	In Subsidiary and Proprietary Companies—						
	"At Valuations":						
	As at 31st Dec., 1932				30,578	2	6
	Less Realized in 1933	£50	0	0			
	Written down from Account (9 (*a*))	449	0	0			
					499	0	0
					30,079	2	6
	"At Cost":						
	As at 31st Dec., 1932	£20,501	6	0			
	Add acquired in 1933	75	0	0			
					20,576	6	0
	In Associated and Other Companies—						
	"At Valuation":						
	As at 31st Dec., 1932	£8,911	6	1			
	Less realized in 1933	1,400	0	0			
					7,511	6	1
	"At Cost":						
	As at 31st Dec., 1932				2,416	10	3
	To Balance Sheet				£60,583	4	10
15.	TRADE-MARKS, BRANDS, ETC. ACCOUNT—						
	As at 31st Dec., 1932 (at Valuation)				5,000	0	0
	Less written down from Profit and Loss Appropriation Account (10)				250	0	0
	To Balance Sheet				£4,750	0	0
	NOTE. *A further £250 for writing down this figure is provided in the report annexed.*						
16.	ACCOUNTS RECEIVABLE—						
	Trade Debtors (including sums paid in advance)				44,699	18	8
	Subsidiary Companies				7,534	14	3
	Associated Companies				3,182	18	0
	To Balance Sheet				£55,417	10	11

The directors have taken a bold step here, and are to be commended for their efforts to make the statement understandable. There is only one comment which is really called for, and that is the inclusion of the issued capital among the liabilities which are due to outside third parties in the general Balance Sheet, for, as we have already seen, the sum due to the shareholders is only repayable when the company ceases to exist. The item "Total Liabilities = £225,799 16s. 4d." might therefore be misunderstood, unless the items comprising this total be carefully scrutinized and interpreted as being the actual sum payable out of the

MIDLAND

BALANCE SHEET,

Liabilities	£	s.	d.	£	s.	d.
Share Capital Authorized—						
2,869,079 Shares of £12 each				34,428,948	0	0
2,000,000 Shares of £2 10s. each				5,000,000	0	0
5,771,052 Shares of £1 each				5,771,052	0	0
				£45,200,000	0	0
Share Capital Issued—						
2,869,079 Shares of £12 each, £2 10s. paid	£7,172,697	10	0			
1,921,677 Shares of £2 10s. each fully paid	4,804,192	10	0			
2,271,122 Shares of £1 each, fully paid	2,271,122	0	0			
				14,248,012	0	0
Reserve Fund				11,500,000	0	0
Dividend payable on 1st Feb., 1937				869,128	14	7
Balance of Profit and Loss Account as below				547,084	4	6
				27,164,224	19	1
Current, Deposit and other Accounts (including £142,735 15s. 4d. on Public and other Accounts secured as *per contra*)	£479,766,998	9	1			
Balances due to Affiliated Companies	7,180,989	12	1			
				486,947,988	1	2
Acceptances and Confirmed Credits on account of Customers				11,054,417	17	9
Engagements on account of Customers				7,545,855	3	4
				£532,712,486	1	4

The Bank has contracts running for the sale of Foreign Currencies to the value of £8,555,168 18s. 0d. which are covered by purchases to a corresponding amount.

The total sum paid to Directors as remuneration for their services is as follows—

	£	s.	d.
Fees and Income Tax thereon at 4s. 6d. in the £ paid by the Bank	£45,045	16	6
Fees and Income Tax thereon at 4s. 6d. in the £ paid by Affiliated Companies to such Directors of those Companies as were also Directors of the Bank	5,646	6	4
	£50,692	2	10

BANK LTD.

31ST DECEMBER, 1936

ASSETS

				£	s.	d.
Coin, Bank Notes and Balances with the Bank of England				52,941,373	9	3
Balances with, and Cheques in course of Collection on other Banks in Great Britain and Ireland				22,092,096	4	0
Money at Call and Short Notice				28,687,886	8	0
Investments at or under Market Value—						
War Loan and other British Government Securities (of which £397,366 5s. is for Public and other Accounts)	£125,308,880	5	11			
British Corporation and County Stocks	604,312	12	0			
Dominion, Colonial, and Foreign Government Stocks and Bonds	87,024	19	7			
Sundry Investments	1,891,820	10	7			
				127,892,038	8	1
Bills Discounted	21,791,113	5	1			
British Treasury Bills	52,622,885	0	0			
				74,413,998	5	1
				306,027,392	14	5
Advances to Customers and other Accounts (*less* provision for Doubtful Debts and Contingencies)				189,265,052	15	3
Midland Bank Executor and Trustee Co. Ltd.—Loans on behalf of Clients				251,435	1	0
Liabilities of Customers for Acceptances, Confirmed Credits and Engagements				18,600,273	1	1
Bank Premises at Head Office and Branches at cost, *less* amount written off				8,891,252	16	4
Other Properties and Work-in-Progress for extension of the business at cost, *less* amount written off				994,343	6	7
Yorkshire Penny Bank Ltd.—						
93,750 Shares of £5 each, £3 paid	£281,250	0	0			
187,500 Shares of £1 each, fully paid	187,500	0	0			
Proportion of Reserve relative thereto	468,750	0	0			
				937,500	0	0
Shares in Affiliated Companies—						
Belfast Banking Co. Ltd.:						
200,000 Shares of £12 10s. each, £4 paid	£800,000	0	0			
Reserve and Undivided Profits	914,988	15	6			
				1,714,988	15	6
The Clydesdale Bank Ltd.:						
100,000 Shares of £50 each, £10 paid						
30,000 Shares of £10 each, fully paid	£1,300,000	0	0			
Reserve and Undivided Profits	1,804,923	5	1			
				3,104,923	5	1
North of Scotland Bank Ltd.:						
163,000 Shares of £20 each, £7 paid.	£1,141,000	0	0			
Reserve and Undivided Profits	1,355,738	4	1			
				2,496,738	4	1
Midland Bank Executor and Trustee Co. Ltd.:						
200,000 Shares of £5 each, £1 5s. paid	£250,000	0	0			
Reserved and Undivided Profits	178,586	2	0			
				428,586	2	0
				£532,712,486	1	4

PROFIT AND LOSS ACCOUNT

Dr. *For the Year ended 31st December, 1936* *Cr.*

	£	s.	d.		£	s.	d.
To Interim Dividend, paid 15th July, 1936, at the rate of 16% per annum, *less* Income Tax . . .	869,128	14	7	By Balance from last Account . . .	467,447	9	11
Dividend payable 1st Feb., 1937, at the rate of 16% per annum, *less* Income Tax . . .	869,128	14	7	,, Net Profits for the year ended 31st Dec., 1936, including the sum of £376,339 10s. dividends from Affiliated Companies, full provision having been made for Rebate, Expenses, and all Bad and Doubtful Debts	2,467,894	3	9
,, Reduction of Bank Premises Account. .	350,000	0	0	In addition to the above dividend, a special dividend of £50,000 has been paid by the Midland Bank Executor and Trustee Co. Ltd., which has been applied in increasing the paid-up Capital of that Company.			
,, Reserve of Future Contingencies . .	300,000	0	0				
,, Balance carried forward to next Account .	547,084	4	6				
	£2,935,341	13	8		£2,935,341	13	8

REPORT OF THE AUDITORS TO THE MEMBERS OF THE MIDLAND BANK LTD.

In accordance with the provisions of subsection 1 of Section 134 of the Companies Act, 1929, we report as follows—

We have examined the above Balance Sheet in detail with the books at Head Office and with the certified Returns from the Branches. We have satisfied ourselves as to the correctness of the Coin, Bank Notes and Balances with the Bank of England, Balances with, and Cheques in course of Collection on other Banks in Great Britain and Ireland, Money at Call and Short Notice and Bills Discounted. We have verified the Securities representing the Investments of the Bank and the British Treasury Bills and having obtained all the information and explanations we have required, we are of opinion that such Balance Sheet is properly drawn up so as to exhibit a true and correct view of the state of the Company's affairs according to the best of our information and the explanations given to us and as shown by the books of the Company.

W. S. AND W.,
Chartered Accountants, Auditors.

LONDON.
11*th January*, 1937.

assets. It is suggested therefore that a better arrangement of the liabilities would be as follows—

				£	s.	d.
Nominal Capital—						
300,000 Shares of 10s. each	£150,000	0	0			
Debentures (secured on Assets)				50,000	0	0
Debenture Bonds (ditto)				5,000	0	0
Income Bonds				10,757	7	6
Accounts Payable				29,884	11	8
Charges accrued (provision for)				2,212	3	9
Bills of Exchange payable				7,945	13	5
Total Liabilities				£105,799	16	4
Issued Capital—						
240,000 fully-paid Shares of 10s. each	£120,000	0	0			
Sundry Reserves	10,372	3	3			
Credit Balance from Profit and Loss Appropriation Account	28,100	9	11			
				158,472	13	2
				£264,272	9	6

An examination of the composition of the item of Sundry Reserves discloses that this includes both General and Specific Reserves. These latter should really be deducted from the assets to which they relate, on the assumption that they are necessary to reduce the amount of such assets to get their estimated real value. If this be so then the shareholders' interest is reduced to that extent. The Specific Reserves are those for Bad Debts (£402 11s. 5d.) and Depreciation (£7500).

6. BALANCE SHEET OF A BANK

It has already been stated (see page 193) that the main interest in the statement of accounts of a bank is the liquid position of the organization, and hence the ability of the customers to obtain payment of any sum due to them when they demand it. An inspection of the Balance Sheet which follows at once emphasizes the importance of this aspect since it is found that the liquid assets are shown at the head of the assets, and not at, or towards, the end as in the other cases already reviewed.

Most of the assets will be found to be very liquid—as in addition to the actual cash resources there must also be the ability to replenish these should any abnormal demand for cash arise on the part of the customers. It is customary to ascertain the ratio existing between "Cash in Hand and at the Bank of England" and "Liabilities to Customers on Current and Deposit Accounts," but occasionally the amount of the first-named item is increased by the two which follow it, viz. "Balances with and Cheques in course of Collection on other Banks in Great Britain and Ireland" and "Money at Call and Short Notice." The item "Balances with, and Cheques in course of collection," etc., consists largely of cheques not yet cleared, whilst the last item named above represents loans and advances made to operators in the Money Market, repayment of which will take place, or can be demanded, within a very short period of time, and thus may justly be regarded as available in times of need. It should, however, be noted that the item of liabilities includes two distinct classes, "Liabilities on Current Accounts," payment of which is capable of being demanded by the customers as and when they please, and "Liabilities on Deposit Accounts" in respect of which depositors must give some agreed notice (usually seven days) before they can claim repayment of any but minor amounts.

The asset "Loans to customers" is not of a very liquid nature, as any demand for repayment in times of stress may force the borrowers to default, and the fact that there is need for the liquidation of this item would tend to increase rather than to alleviate the trouble. It has long been the practice of banks to create internal reserves large enough to bear any abnormal losses which may arise from the realization of securities in times of financial strain, the principal feature of which is the great withdrawal of funds by nervous depositors, and hence we may assume that the disclosed values of the assets, other than the first one, are

on the whole considerably less than the market value at the date of account.

It will be observed that on the liabilities side appear two items in respect of transactions undertaken on behalf of customers. These are (1) "Acceptances and Confirmed Credits on account of customers, £11,054,417 17s. 9d." and (2) "Engagements on account of customers, £7,545,855 3s. 4d.," while on the other side will be seen "Liabilities of customers for Acceptances, Confirmed Credits, and Engagements," and the amounts shown on both sides coincide. The liability is an actual one so far as acceptances are concerned and must be met even though the customer does not fulfil his obligations, but, in the usual way, the customer undertakes to place the necessary funds at the disposal of his banker a short time before the liability incurred on his behalf falls to be paid. In so far as credits issued or guaranteed are concerned there is no *actual* liability at this time, and the obligation to do certain things is contingent only, but, even so, when the contingency occurs and the banker assumes a definite liability he still has a remedy against his customer, and hence the amount appears on both sides of the statement in the manner stated.

The fixed assets will be found to consist of the following—

	£	s.	d.
Bank Premises	8,891,252	16	4
Other Properties and Work-in-Progress, etc.	994,343	6	7
Shares in Yorkshire Penny Bank, Ltd.	937,500	0	0
Shares in Affiliated Banks—			
Belfast Banking Co. Ltd.	1,714,988	15	6
Clydesdale Bank Ltd.	3,104,923	5	1
North of Scotland Bank Ltd.	2,496,738	4	1
Midland Bank Executor and Trustee Co. Ltd.	428,586	2	0
Total	£18,568,332	9	7

The statement of the holdings in affiliated companies differs somewhat from conventional practice in that instead of stating the cost price of the shares as such, which is the

RECEIPTS AND EXPENDITURE

Dr.

To Expenditure	Amount Expended to 31st December, 1934	Amount Expended during Year as per Statement No. 5	Total
	£ s. d.	£ s. d.	£ s. d.
Lines open for Traffic	124,610,280 5 4	254,883 11 5	124,865,163 16 9
Lines not open for Traffic—New Lines.	15,754 10 4	*Cr.* *656 1 6*	15,098 8 10
Lines leased and Lines jointly leased, other than "J" Joint Lines . .	10,336 18 10	*Cr.* *56 10 0*	10,280 8 10
Rolling Stock	21,123,081 2 4	85,991 18 0	21,209,073 0 4
Manufacturing and Repairing Works and Plant—			
Land and Buildings . . .	2,600,972 19 0	10,450 10 6	2,611,423 9 6
Plant and Machinery . . .	1,625,237 6 8	4,712 11 2	1,629,949 17 10
Total Capital expended upon Railway .	149,985,663 2 6	355,325 19 7	150,340,989 2 1
Horses	90,030 9 0	*Cr.* *4,721 15 0*	85,308 14 0
Road Vehicles— Parcels and Goods Road Vehicles .	1,073,474 1 2	27,434 15 5	1,100,908 16 7
Garages, Stables, etc..	250,398 10 10	1,229 15 5	251,628 6 3
Steamboats, etc.	414,964 10 4	-	414,964 10 4
Canals	753,738 19 9	*Cr.* *178 0 0*	753,560 19 9
Docks, Harbours, and Wharves . .	21,145,633 8 3	*Cr.* *51,623 9 0*	21,094,009 19 3
Hotels	209,766 16 10	78,865 8 10	288,632 5 8
Electric Power Stations, etc. . .	516,949 7 7	*Cr.* *145 0 0*	516,804 7 7
Land, Property, etc., not forming part of the Railway or Stations—			
Used in connection with Railway working	175,926 0 10	*Cr.* *1,511 0 0*	174,415 0 10
Not used in connection with Railway working	2,995,612 4 1	14,444 18 11	3,010,057 3 0
Lines jointly owned (Abstract "J") .	319,085 10 5	*Cr.* *28 6 5*	319,057 4 0
Subscriptions to other Undertakings (for details, *see* Statement No. 4 (*a*)).	4,552,213 6 3	*Cr.* *31,647 16 0*	4,520,565 10 3
Stamp Duty, etc., on Additional Capital	62,878 0 0	—	62,878 0 0
20-ton Wagons hired out with option of purchase	1,130,325 0 0	—	1,130,325 0 0
Parliamentary Powers . . .	8,532 11 10	—	8,532 11 10
TOTAL EXPENDITURE . .	£183,685,191 19 8	£387,445 11 9	£184,072,637 11 5

ON CAPITAL ACCOUNT

Cr.

By Receipts	To 31st December, 1935	Amount Received to 31st December, 1934	Amount Received during Year	Total
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Shares and Stocks (No. 2) . .		115,199,617 0 0	—	115,199,617 0 0
Loans (No. 3)		47,300 0 0	—	47,300 0 0
Debenture Stocks (No. 3) . . .		40,607,363 0 0	50 0 0	40,607,413 0 0
Premiums on Shares and Stocks .	13,009,735 9 1			
Premiums on Debenture Stocks .	2,214,417 0 8			
Total Premiums	15,224,152 9 9			
Discounts on Shares and Stocks .	*902,315 17 2*			
Discounts on Debenture Stocks .	*461,818 9 2*			
Total Discounts	*1,364,134 6 4*			
Balance of Premiums and Discounts .		13,860,001 18 5	16 5 0	13,860,018 3 5
TOTAL RECEIPTS		£169,714,281 18 5	£66 5 0	169,714,348 3 5
By Balance		. . . .	. . . .	14,358,289 8 0
TOTAL . .		. . . .	. . . .	£184,072,637 11 5

GENERAL BALANCE SHEET

Liabilities							1934
				£	s.	d.	£
Unpaid Interest and Dividends				68,488	8	1	69,333
Interest and Dividends payable or accruing and provided for				679,712	17	2	682,721
Amount due to Railway Companies and Committees				342,607	0	8	363,270
Savings Banks				3,104,347	11	11	2,775,832
Superannuation and Provident Funds				2,824,481	13	11	2,745,620
Reserve for Superannuation and Pensions				7,365,217	2	11	7,076,146
Accounts payable				739,264	11	7	660,797
Liabilities accrued				803,995	5	9	693,583
Miscellaneous Accounts				577,245	15	2	600,867
Compensation for Accidents Account				200,000	0	0	200,000
Forged Transfers Fund				16,584	12	4	16,098
Fire Insurance Fund				492,393	14	1	493,728
Renewal Funds—							
Railway—	£	s.	d.				
Way and Works	4,430,225	18	8				4,422,795
Rolling Stock	3,646,986	16	2				4,046,025
Other Funds	1,200,924	1	11				1,141,459
				9,278,136	16	9	9,610,279
Steamboats				366,545	11	1	327,906
Other Businesses				3,689,807	4	3	3,650,653
20-ton Wagons hired out				218,089	16	8	122,544
Contingency Fund				1,514,576	10	10	1,782,476
Balance available for Dividends as shown in Statement No. 9	£ 4,676,964	s. 4	d. 0				4,675,817
Less Interim Dividends paid as shown in Statement No. 9 (*a*)	1,779,673	18	7				1,779,674
				2,897,290	5	5	2,896,143
£				35,178,784	18	7	34,767,996

AT 31ST DECEMBER, 1935

Assets	£	s.	d.	£	s.	d.	1934 £
Capital Account, Balance at Debit thereof, as per Account No. 4				14,358,289	8	0	*13,970,910*
Cash at Bankers and in hand				3,446,266	17	5	*3,225,980*
Investments in Government Securities				8,177,538	9	10	*10,010,318*
Investments in Stocks and Shares held by the Company, and Advances to other Companies, not charged as Capital Expenditure—							
(*a*) Transport Undertakings (including £160,703 Ordinary Stock of the Company received under Amalgamation and Absorption Schemes)	370,278	19	1				*37,479*
(*b*) Other Undertakings (including Guaranteed Debenture Stock partly paid)	1,332,143	0	0				*20,393*
				1,702,421	19	1	*57,872*
Stock of Stores and Materials				2,602,792	9	4	*2,715,931*
Outstanding Traffic Accounts				2,222,133	8	5	*2,033,953*
Amount due by Railway Companies and Committees				202,611	19	8	*176,668*
Amount due by Railway Clearing Houses				187,072	2	2	*262,511*
Accounts receivable				277,260	16	1	*324,004*
Advances to Building Societies and Staff for Housing				1,075,942	7	9	*1,106,798*
Miscellaneous Accounts				911,455	0	10	*868,051*
Deposit under Road Traffic Act, 1930				15,000	0	0	*15,000*
				£35,178,784	18	7	*34,767,996*

usual practice, it actually indicates the actual value of the holding as shown by the Balance Sheets of the subsidiaries which the holding bank always circulates with the main document. The statements and accounts of holding companies such as this are dealt with later.

7. BALANCE SHEET OF A RAILWAY COMPANY

The Balance Sheets of railway companies follow a form laid down in the Regulation of Railways Act, 1868, as modified by the Railway (Accounts and Returns) Act, 1911, and the form used is similar to that in which gas works, electricity undertakings, water, canal, shipping and tramway companies present their accounts. The principle is known as the Double Account System, owing to the fact that there are two divisions to the Balance Sheet. In the first of these, called the CAPITAL ACCOUNT, is shown the capital or loans raised for financing the railway and the fixed assets acquired from the funds. The second is known as the GENERAL BALANCE SHEET, and in this appears the floating assets and current liabilities.

The fixed assets enumerated in the Capital Account are shown at the *actual cost*, and are never written down, as these companies are legally compelled to maintain these assets in a proper order to enable the company to give to the public the service it is authorized to supply. Some of these fixed assets are really fictitious, for example Parliamentary expenses in promoting special Acts of Parliament.

Another feature of the Capital Account to be noted is its progressive nature, enabling one to see exactly what money has been raised for capital purposes during the past year, as well as previously, and also what has been expended on fixed assets. If the credit side of the Capital Account is larger than the debit, the balance is the amount of capital available to finance the operations of the company, whereas, if the converse applies (and it usually does), fixed assets

have been acquired out of the surplus of income over expenses, i.e. out of revenue. In the first case the balance of the Capital Account appears *as a liability* in the General Balance Sheet, but in the second case such balance must be treated *as an asset* and is so shown. This is rather confusing to one not versed in the technicalities of this system of accounting, but the balance is actually the amount of the assets acquired out of revenue. Electricity companies, while preparing their accounts in exactly the same way, do however make the position clearer by showing the total of the moneys raised as a liability under the heading of "Capital" in the General Balance Sheet, while the sum of the assets is shown under the heading of "Fixed Assets." The accounts of the Great Western Railway Co. on pages 228-31 show the position very clearly.

8. USEFUL INFORMATION AS TO FIXED ASSETS

Accounts prepared in this Double Account form are very useful in indicating what extensions have taken place in fixed assets and how the necessary money has been provided and it is interesting to note that the need for some such information is being recognized in commercial and industrial circles as is evidenced by the Balance Sheet on pages 234-5 of Messrs. William Timpson Ltd. as at 31st December, 1936.

Quite a number of companies are now following this practice. Possibly the only real objection to this form is that the figures and their significance are somewhat obscured by the amount of detail, a criticism which does not apply so forcefully to the statements prepared on the Double Account System. Simplification would follow with the abolition of the shillings and pence columns, as while they may be necessary if the Balance Sheet is to show the exact balances in the books, yet are quite unnecessary when studying the Balance Sheet, for, as already shown, their effect on any questions of ratios is infinitesimal. Inspection of any

WILLIAM

BALANCE SHEET AS AT

	£	s.	d.	£	s.	d.
CAPITAL						
Nominal Capital Divided into—						
400,000 7% Cum. Pref. Shares of £1 each	400,000	0	0			
500,000 Ord. Shares of £1 each	500,000	0	0			
	£900,000	0	0			
Subscribed Capital—						
375,910 7% Cum. Pref. Shares of £1 each, fully paid	375,910	0	0			
500,000 Ord. Shares of £1 each, fully paid	500,000	0	0			
				875,910	0	0
LIABILITIES						
On Open Account, including Taxation	190,079	19	5			
Employees' and other Deposits at Interest	67,827	1	3			
				257,907	0	8
REPAIRS AND RENEWALS RESERVE						
As at 1st January, 1936	10,786	13	5			
Add Amount set aside by resolution of Shareholders, 23rd January, 1936	5,000	0	0			
	15,786	13	5			
Deduct Amount transferred to Repairs Account	3,286	13	5			
Transferred to General Reserve	£12,500	0	0			
CAPITAL RESERVE						
Amount as at 1st January, 1936	108,367	0	10			
Add Amount transferred from General Reserve by Resolution of Shareholders on 30th December, 1936	85,446	19	2			
Amount Capitalized	£193,814	0	0			
PREFERENCE SHAREHOLDERS' DIVIDEND RESERVE						
As at 1st January, 1936				50,000	0	0
GENERAL RESERVE						
As at 1st January, 1936	20,000	0	0			
Add Amounts set aside by Resolution of Shareholders—						
23rd January, 1936	15,000	0	0			
30th December, 1936	50,446	19	2			
Amount transferred from Repairs and Renewals Reserve	12,500	0	0			
	97,946	19	2			
Deduct Transfer to Capital Reserve	85,446	19	2			
				12,500	0	0
PROFIT AND LOSS ACCOUNT						
Balance at Credit				50,457	0	9
				£1,246,774	1	5

AUDITORS' REPORT

We certify that we have audited the above Balance Sheet with the books and vouchers of the Company, and, having obtained all the information and explanations we have required, we are of the opinion that such Balance Sheet is properly drawn up so as to exhibit a true and correct view of the state of the Company's affairs according to the best of our information, and the explanations given to us and as shown by the books of the Company.

TIMPSON LTD.

31st December, 1936

Property and Other Assets

	Value at Incorporation and Net Additions at Cost: Less *Depreciation* to 31st December, 1935	Net Outlay during Year	Depreciation for the Year		
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Freehold and Leasehold Property—Factory—North Park, Kettering .	67,601 8 3	91 15 3	1,557 0 0	66,136 3 6	
Warehouses, Shops, etc.	254,377 4 9	41,955 0 0	6,136 0 0	290,196 4 9	356,332 8 3
Note. Depreciation is not being written off certain Leasehold properties which are covered by redemption policies, the premiums on which are charged to Revenue.					
Fixtures, Fittings, and Utensils—Factory—North Park, Kettering	7,846 10 10	324 15 9	2,045 0 0	6,126 6 7	
Warehouses, Shops, etc.	127,688 17 7	39,438 12 3	30,621 0 0	136,506 9 10	142,632 16 5
Motors and Motor Lorries. . . .	2,460 7 0	2,187 13 6	1,201 0 0		3,447 0 6
Fixed Plant and Machinery at Factory	10,252 11 4	991 7 1	1,340 0 0		9,903 18 5
	£470,226 19 9	£84,989 3 10	£42,900 0 0		512,316 3 7
Stock-in-Trade at cost or Market Value Certified by the Managing Director					488,907 11 4
Investments—					
Timpsons' Properties, Ltd. (Subsidiary Company)					
49,998 Shares of £1 each, fully paid at cost .			49,998 0 0		
Loan at 4%			5,500 0 0	55,498 0 0	
£58,500 3½% War Loan at market price . .				61,626 1 11	
Fully-paid Shares in British Banks at market price				32,941 5 0	
3% Corporation Stocks at market price . .				7,870 2 6	
3% Corporation Loan at cost				12,500 0 0	
Other Investments at cost, *less* Depreciation .				1,272 0 0	
				171,707 9 5	
Less Investment Reserve as per last Balance Sheet			19,303 16 3		
Less Decrease during the year in market value of quoted securities			205 0 7	19,098 15 8	152,608 13 9
Rates and Insurance—Proportion Unexpired					8,605 4 4
Sundry Debtors					3,668 14 8
Cash at Bankers and in hand					80,667 13 9
					£1,246,774 1 5

In accordance with Section 126 of the Companies Act, 1929, we hereby state that the accounts of the Subsidiary Company for the year ended 31st December, 1936, disclose a profit out of which a dividend is proposed shortly to be paid.

W. F. T.
R. P. W. } *Directors.*

published statistics of financial results show that round figures are commonly used, as they save much work and make tables more easily read.

9. BALANCE SHEET OF A NON-TRADING ORGANIZATION

By way of contrast the accounts of the Automobile Association are shown in detail as illustrating the accounts presented by non-trading organizations.

THE AUTOMOBILE ASSOCIATION

Income and Expenditure Account

Dr. *for the Twelve Months ended 30th April, 1936* *Cr.*

1935 £		£	1935 £		£
	To Expenditure as Under (to Nos. 1, 2, and 3, of which have been added their proportion of Administration)		915,122	By Subscription and Entrance Fees .	972,129
685,539	(1) Road (Patrols' Wages, Salaries, Uniforms, Motor Car and Village Signs, Telephone Sentry Boxes, etc.)	711,313	44,522	,, Sundries (Badges, Touring Department, etc.) .	48,058
190,969	(2) Provincial and Continental Branches, including Aberdeen, Belfast, Birmingham, Cardiff, Chelmsford, Cork, Dublin, Dundee, Edinburgh, Exeter, Glasgow, Guildford, Leeds, Liverpool, Maidstone, Manchester, Newcastle, Norwich, Nottingham, Reading, Southampton, and Paris (Rent, Rates, Taxes, Salaries, Circularizing, Travelling Expenses, etc.)	207,209	18,943	,, Income from Investments, Interest, and Discounts . .	20,462
59,082	(3) Legal Defence, Law Charges, and Disbursements. .	69,614	16,949	,, London and Provincial Premises	17,056
19,447	(4) Replacement and Depreciation of Office Furniture and Road Department Motor Cars and Motor Cycles .	18,435			
2,000	(5) Motor Legislation Committee . .	2,000			
38,498	To Balance Carried Down	49,134			
£995,535		£1,057,705	£995,535		£1,057,705

BALANCE SHEET, 30TH APRIL, 1936

1935 £		£	1935 £		£
397,074	Members' Subscriptions in Advance, and Touring Deposits	428,858	73,020	Cash at Bankers and in Hand	77,112
75,191	Contingencies Fund, Trade and Sundry Creditors	94,511	495,968	Investments at Cost (less Reserve for Depreciation). The market value at date is in excess of this figure	575,968
71,651	Life Membership	73,001	30,192	Expenses paid in advance, Accrued Income and Debtors	30,037
420,598	Reserve Fund (including balance of Income and Expenditure Account at 30th April, 1935)	459,096	8,573	Sundry Stock	8,532
38,498	Income and Expenditure Account—Balance, 30th April, 1936	49,134	395,259	Freehold and Leasehold Premises (at Cost less Depreciation)—London, Brighton, Bristol, Chelmsford, Guildford, Maidstone, Manchester, Norwich, Reading, and Southampton	412,951
£1,003,012		£1,104,600	£1,003,012		£1,104,600

AUDITORS' REPORT

We report that we have obtained all the information and explanations we have required. We have examined the above Balance Sheet with the books and vouchers relating thereto, and in our opinion it is properly drawn up so as to exhibit a true and correct view of the state of the affairs of the Association according to the best of our information and the explanations given to us, and as shown by the books of the Association.

L. F. & CO.,
Chartered Accountants.

London, E.C.4.
Dated this 16th day of June, 1936.

It will be observed that no capital appears—as none has been raised—the excess of income over expenditure accumulated year by year being used to extend the activities of the organization. This is shown under the heading of Reserve. The grouping of Contingencies Fund and Trade and Sundry Creditors into one item is not at all satisfactory, as the exact amount which has to be paid out of the cash resources cannot be ascertained, and the financial

position is obscured. The first-named item is probably fairly large, yet it might happen that it is quite a small amount, in which case the greater proportion of the total sum is actually payable within a short time. Life Membership represents the balance of the amount received from members who have compounded their subscriptions and who are to receive service as long as they live. If the association were wound up, some proportion of the sum paid by them would probably be the subject of a claim upon the assets, though the by-laws of the particular association would have to be consulted as to the exact position.

10. COMPARATIVE BALANCE SHEETS

It has already been stated that while the Balance Sheet discloses the position at any given time it does not indicate how the business is progressing. Even the insertion of the corresponding figures for the previous year, useful as these figures may be and are, does not give enough information to show the real developments or retrograde movements which are taking place. A study of a series of Balance Sheets yields much useful information, particularly when the figures are presented in tabular form. For example, if turnover is increasing, this will be reflected in the Balance Sheets, for Sundry Debtors will naturally tend to be larger unless the whole of the additional business is done in cash, which, in any organization giving credit as well as dealing for ready money, is very unlikely. The amount of stock carried will also be larger unless more efficient and rapid methods of obtaining supplies operate. With the increase in stocks, we shall expect to find that the item of creditors will also be greater, unless additional working capital has been introduced.

The statement included in Appendix D shows the comparative Balance Sheets over a period of four years. The amount due from the subsidiary companies would appear

to be in the nature of a loan owing to its changing but little, and this cannot therefore be regarded as a liquid asset. The assets available to meet the claims of the short-term creditors will therefore be: Stock-in-trade, Bills Receivable, Trade and other Debtors, and Cash at Bankers and in Hand, from which must be deducted the amounts of the dividends to be paid, while the sums to be disbursed consist of Bills Payable, Trade and other Creditors, and (in the last two years) the accrued Debenture Interest.

If we now prepare a comparative table we find the following position disclosed—

	1st Year	2nd Year	3rd Year	4th Year
	£	£	£	£
Total Liquid Assets .	72,350	56,625	103,625	103,723
Deduct Dividends proposed to be paid .	16,500	16,500	19,500	21,500
Surplus . .	55,850	40,125	84,125	82,223
Short-term Liabilities .	21,600	33,500	47,800	18,940
Ratio of Liquid Assets to Current Liabilities .	2·58 to 1	1·20 to 1	1·76 to 1	4·34 to 1

The cover for liabilities in the second and third years is obviously unsatisfactory and it will be advisable to see what has happened. To do this we must ascertain the profit made during the last three periods and also study the increase in the capital structure and how the moneys thus becoming available have been used. The profit made in the first year cannot be ascertained as we are not acquainted with the balances of profit brought forward from the preceding year. The profits for the subsequent years will be ascertained as follows—

	2nd Year	3rd Year	4th Year
	£	£	£
Balance of Profit brought forward . .	5,150	10,000	8,000
,, ,, carried forward . .	10,000	8,000	9,250
Add Increase (+) or Decrease (–) . .	+ 4,850	– 2,000	+ 1,250
Dividend for half-year on Preference Shares paid	1,500	1,500	1,500
Dividend proposed—			
Preference Shares (half-year) . . .	1,500	1,500	1,500
Ordinary Shares	15,000	18,000	20,000
Amount written off—Cost of increasing Capital	250	250	—
Transfer to Reserve.	—	5,000	10,000
Amount written off the Discount on Debentures	—	—	200
Amount written off the Expenses of Debenture Issue	—	—	2,000
Transfer to Debenture Redemption Sinking Fund	—	—	8,500
Amount of Net Profit made after allowing for Depreciation and all Expenses . .	£23,100	£24,250	£44,950

It will also be observed that in the second year the Ordinary share capital was increased by £50,000, but as the Reserve had fallen by the same amount this increase is apparently due to an issue of bonus shares, and it will be seen that in the second year the *amount* of the dividend is the same as in the previous year, but in view of the larger capital the *rate* of dividend in the second period was only $7\frac{1}{2}$ per cent as against 10 per cent the year before, and as a matter of fact this last-named rate was not again paid till the fourth year.

The increase of capital by means of bonus shares does not therefore affect either the amount of money available for financing the business, or the profit-earning capacity. During the second year fixed assets, including investments in subsidiary companies, had increased by £24,750, investments had been made in allied and associated organizations to an extent of £6250, an additional sum of £1000 had been advanced to subsidiaries, and a fictitious asset of £500 created in respect of the expenses incurred in increasing the

capital, a total of £32,500. On the other hand there is a decrease in the amount of liquid assets of £15,725 and in the amount of prepaid items of £25, hence our assets side is increased by a net figure of £16,750. This sum has been provided as to £4850 by additional profits retained within the business, and as to £11,900 by an increase in the amount owing to creditors, a fact which materially affects the stability of the business as is shown by the ratio on page 239.

An investigation of the individual items also shows that the item of Stock has fallen by no less than £12,150, a figure at which it may well be below that which is essential for the well-being of the business, particularly in view of the fact that the Debtors being larger by £6975 indicates that a larger volume of business has been done, as so great a relative increase in this item is very unlikely to be due to delay in payment by those who owe money to the business. It is apparent from a consideration of all these facts, allied with the diminution of the cash balance, that the increase in the fixed assets has been made at the expense of the liquid ones, and/or of the creditors, and that some steps would have to be taken to correct this state of affairs. This was done in the following year when an issue of Debentures was made, resulting in a net figure of £91,000 becoming available for the business, i.e. £100,000 Debentures, less discount £2000 and expenses of issue £7000.

The assets show the following changes—

		£	£
Increase in Fixed Assets		64,750	
,, in Floating Assets (items 18, 19, 20, 21, 23) less £3000 additional dividend to be paid		44,000	
Increase in Prepaid Expenses (item 22)		50	
		108,800	
Less Decrease in—			
(*a*) Loans (item 17)	£250		
(*b*) Fictitious Assets (item 28)	250		
		500	
Net Increase			£108,300

This increase arises from the following—

	£	
Net Proceeds of Debenture Issue	91,000	
Additional Profits carried to Reserve (item 9) .	5,000	
Increase in Creditors (items 4, 6, 7, and 8) . .	14,300	
	110,300	
Less Reduction in Balance of Profits carried forward	2,000	
		£108,300

We find, however, that the ratio of liquid assets to current liabilities is still low—though materially better than twelve months earlier—but this may be due to a large replenishment of the stock, and a considerable increase in Debtors, Bills Receivable, and also Cash. In this year a considerable capital expenditure was incurred, and this again absorbed funds which otherwise would have been available as working capital. The influence of capital expenditure on the liquid position is clearly seen in the following year when, as no extension of fixed assets took place, and the amount of profits retained in the business increased, i.e. Reserve by £10,000, and additional profits carried forward by £1250, the amount of the creditors was materially reduced and the ratio of liquid assets to current liabilities was very high. The following reconciliation also makes the position clear—

	£
Decrease in Fixed Assets	13,250
,, in Liquid Assets (items 18, 19, 20, 21, 23, *less* increased dividend of £2000)	1,902
Decrease in Prepaid items	8
,, in Fictitious Assets	2,450
	£17,610

Decrease in Liabilities		£28,860	
Less Increase in Profit balance . .	£ 1,250		
,, Increase in Reserve . . .	10,000		
		11,250	
			£17,610

No cognizance is taken of the Debenture Redemption Sinking Fund or the investment made in accordance therewith, as the latter is not available for the purpose of the business.

It will be observed that Stock, Debtors, and Bills Receivable (which can be regarded as one item) have increased materially as the profits advance, and follow increased turnover. A careful study of the fixed assets shows that depreciation has apparently been continuously allowed, and such a statement as this enables, as we have seen, the changes in the financial structure and trading to be ascertained with ease.

CHAPTER X

GENERAL PRINCIPLES OF CRITICISM OF BALANCE SHEETS AND FINANCIAL STATEMENTS

1. From Creditors' Point of View
2. From the Point of View of Debenture-holders or Long-term Creditors
3. From Point of View of Shareholders—
   (a) Preference Shareholders
   (b) Ordinary Shareholders

Having seen various forms which Balance Sheets may take, let us consider the question of understanding and criticizing them. The form which any criticism will take depends upon the nature of the relationship of the investigator to the business whose accounts are under review, and to the object of the investigation. There are usually three interested classes, viz.—

(1) Trade or other creditors whose liabilities will fall due for payment within a very short period of time, or those who are asked to extend credit on similar terms.

(2) Debenture-holders or those who are owed sums repayable at some time in the future. Such liabilities are usually secured by a charge on some or all of the assets. Alternatively we also have those who are thinking of acquiring debentures, or making long-term advances; and

(3) Shareholders or would-be shareholders. Where different classes of shares exist and the rights vary, each class must be considered separately.

1. FROM CREDITORS' POINT OF VIEW

Those who are owed money which is due for payment within a short period of time are concerned with the ability of the business to meet its obligations as and when they fall

due. The nature of these short-term liabilities varies considerably in different businesses, and the Balance Sheet does not, and usually cannot, indicate these differences. For example, if we take a Balance Sheet of a bank we find the item "*Current Deposit and Other Accounts,*" as shown on page 222. This item comprises two distinct and different liabilities, as creditors on current account can demand payment of the whole or any part of the sum due to them at any time they so desire by merely drawing a cheque, whereas those persons who have money on deposit can only draw limited and quite small sums on demand, and have to give an agreed period of notice, usually seven days, before the whole or any major sum can be withdrawn. The banks must, of necessity, keep a much larger sum available to meet the claims of the former, for when cheques are presented immediate payment must be made, whereas in the latter there is the definite period of notice within which the debtor bank can raise funds to make the payment at the end of the time. In criticizing a bank's Balance Sheet, however, we do not know the proportions these two differing liabilities bear to the total, and consequently we are compelled to treat them all as payable on demand. We therefore compare the amount shown with the item of "*Coin, Bank Notes and Balances with the Bank of England.*"

The case of a trading concern is very different, as where goods are purchased on credit the amount due for them only becomes payable at the end of an agreed time (i.e. at the conclusion of the period of credit), and thus the item of "*Trade Creditors*" will consist of sums which are payable over the period of credit allowed. If we suppose that a business buys goods on three months' credit and that the business is not of a seasonal nature, from which it follows that the amount of purchases is approximately the same month by month, then any sum due at, say, the 31st December will become due for payment as to one-third

during January, another third during February, and the balance in the month of March. This "spread" in the time of payment gives the business the opportunity of increasing its cash by the collection of sums due to it by its debtors, and of selling some of its goods, and out of the sums becoming available from these sources meeting its obligations. The same considerations apply to bills, for bills receivable will be maturing and providing funds which will assist in meeting the claims of creditors in respect of bills payable or other debts.

This time element in collecting and making payments is a very important matter as is well illustrated in the following case—

A board of directors asks for a statement showing what surplus funds they will have for investments after providing for all current expenditure for the next five months, on the assumption that subsequent expenses will be covered by future receipts. The following summary is produced—

		£			£
Jan. 1.	Cash at Bank . . .	5,000	Feb. 1.	Income Tax payable .	12,500
Feb. 1.	Treasury Bills mature .	15,000	Jan. to May 31.	Expenses payable in regular monthly sums . .	7,500
5.	Remittance receivable from Foreign Branch . .	20,000	May 31.	By Balance . . .	38,000
April 1.	Interest on Investments due	10,000			
May 1.	Dividends receivable .	8,000			
		£58,000			£58,000

If we assume that the balance of £38,000 can be invested, no allowance is made for a working cash balance, and the statement gives no idea when investment should be made if the maximum earning is to be obtained. If the time element is taken into account, and it is assumed that a working cash balance of £2000 is essential, the statement could be redrawn as follows—

	January	February	March	April	May
	£	£	£	£	£
Balance on 1st of month	5,000	2,000	2,000	2,000	2,000
Add Receipts during month—					
Feb. 1. Treasury Bills maturing		15,000			
Feb. 5. Remittance due from Foreign Branch		20,000			
April 1. Interest on Investments due				10,000	
May 1. Dividends due					8,000
	£5,000	£37,000	£2,000	£12,000	£10,000
Payments—					
Expenses	1,500	1,500	1,500	1,500	1,500
Income Tax		12,500			
Working Cash Balance	2,000	2,000	2,000	2,000	2,000
	3,500	16,000	3,500	3,500	3,500
Surplus (+) or Deficiency (−)	+ £1,500	+£21,000	− £1,500	+£8,500	+£6,500

From this it can be seen that in any month in which there is no income (e.g. March) the balance brought in is insufficient to pay expenses and carry forward the necessary sum of £2000, hence the balance available must be increased by at least £1500. The company can therefore invest as follows: January, £1500; February, £19,500 (i.e. £21,000–£1500); March, nil; April, £8500; and May, £6500, a total of £36,000. Alternatively, as the receipt in April is considerable and not only occurs at the beginning of the month, but the date of which would be known some time beforehand, the balance carried forward from March could be left at £500, in which case £21,000 could be invested in February and £7000 in April. This would result in a slight increase in the earnings. If, however, the income for April were only receivable towards the end of the month, this policy would not be an advisable one as the cash balance might easily be exhausted in paying expenses which are presumably payable throughout the month.

The rapidity with which moneys are collectable regulates to a large extent the amount of working capital which a

business must have to finance its operations. Many businesses experience difficulties from an insufficiency of working capital, and it is difficult to make an accurate estimate of the requirements.

The following form illustrates a procedure which may be adopted, in order to ascertain what working capital is necessary to finance the business adequately, assuming that the firm can produce one hundred machines per month, selling them either for a cash price of £50, or on hire-purchase agreements, providing for a deposit of £8 and eleven monthly instalments of £4.

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1. Estimated Number of Machines to be Sold—												
For Cash	1	2	5	4	5	5	8	15	30	35	40	50
,, Hire Purchase	9	10	10	14	15	22	24	35	40	45	50	50
	£	£	£	£	£	£	£	£	£	£	£	£
2. Payments—												
Works Costs	300	358	435	520	580	785	930	1450	2000	2550	2550	2800
Selling Expenses	10	12	15	20	20	27	32	50	70	90	90	100
Administration	90	90	90	90	90	100	100	110	110	120	120	120
Total	*400*	*460*	*540*	*630*	*690*	*912*	*1062*	*1610*	*2180*	*2760*	*2760*	*3020*
3. Receipts—												
Cash Sales	50	100	250	200	250	250	400	750	1500	1750	2000	2500
Hire Purchase:												
Deposits	72	80	80	112	120	176	192	280	320	360	400	1400
Instalments	—	36	76	116	172	232	320	416	556	716	896	1088
Total	*122*	*216*	*406*	*428*	*542*	*658*	*912*	*1446*	*2376*	*2826*	*3296*	*3988*
4. Deficit	278	244	134	202	148	254	150	164				
5. *Surplus*									*196*	*66*	*536*	*968*
6. Cumulative Deficit	278	522	656	858	1006	1260	1410	1574	1378	1312	776	
7. *Cumulative Surplus*												*192*

A study of this statement shows that the firm would have a steadily increasing demand for money until the end of August when the deficiency reaches its maximum, so that

a minimum working capital of £1574 would be required. From September onwards there is an estimated surplus of receipts over payments which reduces the maximum amount. Such a statement as this would be very useful when asking for temporary loans, as it clearly indicates the maximum required and the time when reductions in the loan could occur. The influence of cash sales on the financial position will also be readily appreciated. It must not be overlooked that if delay occurs in the payment of instalments, the amount of the monthly deficiency or surplus will be affected. In the month of December, for instance, allowance has to be made for two instalments not being received, with the result that the surplus is £8 less than it would be had all sums been paid when due. From January of the next year hire-purchase agreements will be running off, and unless the same number of new ones take their place the income from instalments would show a progressive decline.

It will now be apparent that when debts are payable over a period the floating assets should, during the same period, ensure a constant replenishment or increase in the cash balance out of which liabilities and expenses can be met; hence, when considering the Balance Sheet of a trading house, the creditors are interested in the ratio which the floating (and liquid) assets bear to the current liabilities, and the amount of fixed or other assets do not concern them at all unless and until the company goes into liquidation. If we now turn to the model Balance Sheet (Appendix C) we can study the position of the business as regards its short-term creditors. If we assume that (1) these liabilities are payable over a period of three months, (2) the balances due to and by subsidiary companies are incurred in the normal course of trading (i.e. are not advances but debts due for goods supplied),[1] and (3) a dividend of 15 per cent

[1] If these sums or either of them were advances, they would have to be deleted from the statement, as they will not be available within the period.

on the Ordinary shares is paid as proposed, we find the liabilities to be met are—

	£
Sundry Creditors (items 16, 17, 18, 19) . . .	67,150
Amount due to Subsidiary Companies (item 20) .	7,850
Amount of dividend free of tax (i.e. 15% on £175,000)	26,250
Debenture Interest (one quarter has accrued due at 31st December, 1936, and hence a full half-year's dividend is due on 31st March, 1937) . . .	3,000
	£104,250

To meet these liabilities we have floating assets of £182,075, from which must be deducted the Prepaid Expenses (item No. 42), for such sum of £75 is not actually receivable but will be exhausted as the service is given, leaving £182,000, so that the current liabilities are covered by liquid assets approximately one and three quarter times. It should, however, be noted that the figure for stock is the cost or market price of the goods and the actual amount receivable from the sale of the goods would be higher by the amount of the gross profit "mark-up," but the exact amount receivable is unknown. The assumption is that the stock will be sold either for cash within the period of credit allowed by suppliers, or alternatively sold for credit within such time and on such conditions that the amount for which it is sold is received and becomes available for the payments to creditors. As against this, however, it may happen that the stock may not be sold within the term of credit (as would happen when the speed of turnover is slow) or the cash not received till a later date. Conversely, if the rapidity with which the goods are turned over increases, even more goods may be acquired and sold and the cash received within the period of credit allowed by suppliers, more money becomes available within such time, though to the detriment of the ensuing period.

This last-named aspect should, however, not be taken

into account as it is not prudent to take the most favourable circumstances. Actually the amounts payable in respect of dividends would, unless paid free of tax, be reduced by the tax deducted by the company when paying dividends, e.g. with tax at 5s. in the £ the net sum payable to Ordinary shareholders would be £26,250 less £6562 10s. or £19,687 10s. The excess of the liquid assets over the current liabilities gives us the *working capital* available for financing the business. It must not be overlooked that during the time taken in converting the liquid assets into cash, the normal expenses of the business will have to be met out of the available resources (e.g. general production, administration, selling, and distribution expenses) in addition to paying creditors the sums due to them. In a manufacturing business, such as our example appears to be, the ratio of liquid resources to current liabilities is rather low, as in practice a minimum ratio of 2 to 1 is considered advisable. It would appear therefore that the directors' dividend policy is not a wise one, and that a payment of 15 per cent on the Ordinary shares is too high when the liquid position is considered. A reduction of the dividend to 10 per cent will reduce the liabilities by £8750 to £95,500, but, even so, the liquid assets are still rather less than twice the amount owing. The profits made would justify a higher dividend, but apparently the additional funds arising from the profits have been sunk in some form of fixed assets, and being thus "locked-up" are not available to meet current obligations.

The actual disposal of the profits could be ascertained if the Balance Sheet had shown the comparative figures for the previous year. In the case under review the fact that the Ordinary shares are not fully paid should not be overlooked, as a call of the balance of this capital will increase the cash resources by £25,000. If this be done the floating assets increase from £182,000 to £207,000, but the liabilities

are still not covered twice over, as this would call for an amount of £208,500, and even if the call be made the dividend proposed is too high. In the case under review the actual amount of cash at the close of the period is very small, and is, in itself, far from sufficient to pay the dividend. If the other items included in floating assets are of an amount which is usual in the experience of the business, the dividend can only be paid at the expense of reducing some asset or assets below the sum normally necessary, or, alternatively, obtaining extended credit from suppliers, a state of affairs which emphasizes the effect of the use to which profits have been put.

If steps had been taken to conserve in a liquid form the additional sums arising from profits, in order that a dividend may be paid, then we may look at the position from a somewhat different point of view. In such a case we should deduct the amount of the dividend from the floating assets and take the balance of these as available for meeting the claims of current creditors.

The result would be as follows—

	£	
Floating Assets available for Creditors . .	182,000	
Deduct amount required to pay dividend .	26,250	
		£155,750

The amounts payable will be—

	£	
Creditors	67,150	
Due to Subsidiaries	7,850	
Debenture Interest	3,000	
		£78,000

This results in the assets being almost twice the amounts payable out of them, a somewhat better position.

In the case under review there is apparently an obligation to create a Debenture Redemption Sinking Fund, for which purpose £10,000 is being set aside. This will entail the

investment of a similar sum and hence the circulating assets will have to be reduced by a further £10,000 to £145,750 so that the position becomes even less satisfactory, the cover now being only 1·868 times the liabilities.

This aspect of the liquid position on the dividend policy of a company is well illustrated in the following—

A company having made a profit is desirous of paying a dividend of £12,000 provided that enough working capital is available to finance its operations.

The following statement is prepared—

	£	£
Floating Assets—		
Cash	16,000	
Book Debts	44,000	
Stock	30,000	
		90,000
Current Liabilities (omitting dividend)		45,000
Working Capital		£45,000

giving a cover of 2 to 1 before taking the dividend into account, and a working capital of £45,000, which would be reduced to £33,000 after the payment to the shareholders has been made. As there is a cash balance of £16,000 available it might appear safe to pay the dividend, but the composition of the items needs some investigation. This discloses the fact that the stock is below normal, and that, to ensure the ability to maintain the same rate of turnover as heretofore, this item should be at least £36,000—equivalent to two months' supply since this is approximately the time taken to replace goods sold. It is also found that debtors are taking somewhat longer credit, the average time during the last year being two and a half months instead of the two months allowed, that the creditors are higher than is customary and that they are kept waiting a longer time than is advisable, or allowed, and that the minimum amount of cash which it is safe to carry is £7000.

When these facts are taken into consideration the working capital required will be found as follows—

	£	£
Normal Amount of Stock to be carried . .	36,000	
Outstanding Debtors on basis of average monthly sales of £18,000 (price of goods sold to them), and of $2\frac{1}{2}$ months' credit now taken	45,000	
Cash Balance required	7,000	
		88,000
Deduct—		
Credit provided by suppliers of goods on basis of average purchases of (say) £15,000 per month, and average credit of two months allowed		30,000
Working Capital required		£58,000

As against this amount of working capital required we have an actual amount of £45,000 only, i.e. £13,000 less than is really necessary if the reputation of the business is to be maintained with the suppliers. It is thus not only impossible to pay a dividend, but additional funds are urgently needed. It would appear that the shortage of stocks disclosed is due to the reluctance of the creditors to supply more goods in view of the fact that the amount owing to them is higher than it should be, which in turn indicates that the terms of credit allowed by suppliers are being exceeded.

Facts such as those used above will not be available to the ordinary shareholder, would-be shareholder or his advisers, and have only been given as a guide to methods which should be adopted by boards of directors who are anxious to do their utmost for the welfare of the business. This aspect will often conflict with the interests of shareholders, who, seeing large profits are being made, assume that dividends can be paid as a matter of course.

In the case already quoted it would appear that fixed assets are being acquired out of the profits (i.e. capital payments are being made out of revenue), and while this policy often,

and usually, is a beneficial way of financing extensions, yet, as shown above, it may be carried too far, in which case the working capital is diminished and the dividend paying capacity of the concern reduced. In the example under review not only have the whole of the profits been so treated, but, in addition, some of the capital previously available for the finance of operations has also been applied in this manner.

It has already been indicated that the total of floating and liquid assets should be at least twice the amount of the current liabilities before creditors can be sure that the business is capable of meeting the liabilities as they mature, but this cannot be taken as an absolute rule. In the case of a manufacturing business where wages form a high proportion of the prime cost, the ratio should be considerably higher owing to the large cash payments which have to be made to the working force each week. In such a case the purchases will only be for raw material which, while resulting in lower sums due to creditors, will also reduce the value of the stock of raw materials, though any finished goods in hand at the close of the period will, of course, be much higher in value due to the high proportion of labour cost to materials.

Conversely, a trader who purchases articles in a condition suitable for immediate sale has not the same need for cash to meet weekly expenses, though even here consideration must be given to the general costs of running the business. The chairman of one of our great stores once told his shareholders that in some departments the cost of selling and distributing goods was larger than the actual cost of the merchandise, and such costs would have to be met out of the working capital. There are many other factors which affect this ratio. Some businesses must of necessity carry a very large stock in order to meet varied demands, and in order to do this the amount of working capital must be

increased. A business like a coal mine, whose products are dispatched as fast as they become available and hence has practically no stock, needs much less. The working capital must also be increased when it is necessary for a concern to purchase goods far ahead of its immediate requirements, when, because of scarcity or uncertainty or difficulties of transportation, steady and regular supplies cannot be obtained. Businesses of a seasonal nature are similarly affected, but, on the other hand, where the house is one which normally manufactures largely or solely to fulfil orders already obtained it will need relatively less capital than one in the same line of business but which only sells its output after production. The longer the time taken in production the greater must be the working capital, while the period during which goods are held in stock pending sale, as well as that of credit by suppliers as compared with that given to purchasers, are other factors which need consideration. Here again the nature of the business must be considered in assessing the safety or otherwise of the position disclosed.

If the sums due to creditors exceed the total of the fixed and liquid assets the position is a serious one, unless the period of credit given by suppliers is long. A company which has a deficiency of working capital must "put its house in order" or disaster will overtake it, since creditors realizing this position will curtail or withdraw their credit facilities as it is obvious to them that it is very unlikely they will be paid promptly on the due dates. If a business finds itself in the position of having to realize fixed assets to meet its current liabilities it will be reducing its ability to do business, profits will decline, and liquidation is almost certain to follow.

Where Debentures have been redeemed but are held for re-issue they afford a measure of assistance, as by selling these a sum at once becomes available to increase the cash

resources (seeing that normally they would not be included as part of the floating assets), and thus improve the liquid position, and also the ability to meet liabilities of a short-term nature.

The nature of the liabilities must also be considered. In the model Balance Sheet upon which the position is being assessed we have Secured Creditors of £6750. If we assume that this sum represents advances against documents of title to goods (a procedure often adopted), the creditors have a first right against the goods, and if this be recognized then the position would be as follows—

		£	
Floating or Liquid Assets as per Balance Sheet .		182,075	
Deduct Stock charged to Secured Creditors	£6,750		
Prepaid Expenses . . .	75		
		6,825	
			£175,250
Current Liabilities as Statement on page 250 .		104,250	
Deduct Creditors secured and provided for above		6,750	
			£97,500

Creditors are now covered 1·8 times instead of just under 1·75.

A bank overdraft is a type of liability which is not so definite in its payment as an ordinary trade creditor, as generally such facilities may be withdrawn or curtailed at very short notice, and the debt is often secured. It is probably advisable for this to be treated in a similar manner to a secured debt in order to get the requisite ratio.

If we are concerned with the point of view of one who is asked to extend credit, another point of view must be taken—as if the credit be granted then assets will be increased to the same extent as the liabilities and the proportions of the former to the latter be smaller. Thus, supposing additional goods are obtained for £20,000 on credit,

our assets increase to £195,250 while liabilities will now stand at £117,250, so that these are only covered 1·7 times. On the other hand, this increased stock, if resulting in larger sales, will tend to increase the profits when sold and help to improve the position later.

If a short-term loan be obtained for a similar sum the result will be the same at the time the advance is obtained, but the use to which the money is put affects the position materially. If it be applied in acquiring additional fixed assets the proportion falls still further as, while the current liabilities remain unchanged, the circulating assets will fall to their original figure and the ratio be £182,000 assets as against £124,250, or only 1·47 times as much. On the other hand, when the money obtained on loan is used to repay some other creditor the proportion is restored to its original condition. It will be appreciated that an important point for a would-be lender to elucidate is the object for which the money he is asked to advance will be used. If short-term loans are applied to finance extensions of fixed assets the only means of repayment is out of the additional earnings of such assets, but these are not likely to be available quickly, and default in repayment occurs, or working capital is reduced by the discharge of the obligations, whereas, when the loans are used to acquire fresh stocks of goods on favourable terms, and these can be offered for sale at highly competitive prices and so ensure quick turnover, such short-term loans may be very remunerative and advantageous.

Occasionally this kind of loan is raised for capital extensions pending the completion of negotiations for obtaining additional capital by (*a*) the issue of shares, or (*b*) long-term Debentures. This procedure is not open to criticism, though if such a position exists at the date the Balance Sheet is prepared one would expect to find some reference to it in the directors' report.

So far we have assumed that the debts are payable, and the assets realized more or less evenly over the normal period of credit allowed. From the Balance Sheet we cannot get any information which will enable us to make any other assumption, but such is not always the case. When trade is of a seasonal nature purchases are not evenly spread, and hence payments vary in size at different periods and it may well be that while over a period of, say, three months adequate funds will be available *in total* to meet the whole of the debts payable in the same period, yet at some time within the period itself there may be a real deficiency in the liquid position. If the sums becoming due and payable were classified as follows we could then study the exact position—

Month	Sums Due on Bills Payable or to Creditors during month	Sums Receivable during Month	Deficiency (—) or Surplus (+) of Receipts as against Payments
	£	£	£
January . . .	17,840	10,560	— 7,280
February . . .	19,560	8,960	— 10,600
March . . .	5,240	27,975	+ 22,735
Total . .	£42,640	£47,495	+ £4,855

Here the total sums receivable exceed the amount payable over the three months, but in each of the first two periods there is a serious deficiency which will have to be provided out of the available cash balance or alternatively by temporary borrowing as the payments in those two months amount to £37,400 against receipts of £19,520. A statement of this kind is useful when the question of the length of a loan is under discussion. It will now be appreciated that however carefully a creditor studies a Balance Sheet he can

only get a general picture of the position and the actual results may be quite different.

If the creditor be the banker of the undertaking (e.g. when he has made a loan or granted an overdraft) he has in his records of the banking transactions of the firm a great deal of additional information with which he can supplement that given by the Balance Sheet. For example, the cheques received by him for collection will indicate when moneys are received, and whether one period or periods shows larger receipts than others, while payments will indicate when money is being paid away, and hence at what time or times there will be a surplus of cash available for the repayment of any loan granted. A banker, however, does like to receive monthly or other short-term statements by the firms he is financing and such statements indicate the sums which are receivable and payable, the amount of sales made, the expenses paid, and the profit obtained. This enables him to assess the extent to which the loan or overdraft will be increased or reduced in the near future.

2. FROM THE POINT OF VIEW OF DEBENTURE-HOLDERS OR LONG-TERM CREDITORS

Those to whom money is owed and the repayment of which is not to be made for a considerable period of time are obviously only interested to a very minor degree in the present liquid position. They are concerned with two major points, viz.—

(1) that when the capital sum is due for repayment the business will have assets which can be realized, or used as security for further loans, and the proceeds be available for discharging the obligation; and

(2) the continued ability of the company to pay them the interest on their loans.

Most of the creditors falling into this class are fully secured either by a specific charge on certain defined assets, and/or

by a floating charge on all the assets, but beyond general indications Balance Sheets do not usually show the exact nature of the charge, or the items affected by it. It thus often becomes necessary to inspect the company's file at the office of the Registrar of Joint-stock Companies, or the Register of Charges kept at the registered office of the company to get essential details, unless a copy of the Prospectus or Offer for Sale issued when the public were invited to make application is available. In our model Balance Sheet we find the item "5 per cent First Mortgage Debentures" thus indicating a specific charge on certain assets, probably (and generally) the Land and Buildings with or without the Plant and Machinery and Furniture and Fixtures, and for the purposes of our demonstration we shall assume that the asset mortgaged is the Land and Buildings only. This item is valued at £190,000 while the amount of the liability is £120,000, so that the Debentures are covered 1·583 times, and, provided the value at which the Land and Buildings appear in the accounts is a proper and reasonable one, the cover is satisfactory.

It will be remembered, however, that the property is charged not only with the capital sum but with any accrued interest, but as in the normal way this interest will be discharged out of the floating assets, it can be ignored in connection with the security afforded to the debenture-holders. If the debenture-holders have granted a moratorium in respect of the payment of interest then the debt due to them is thereby increased in importance and must be taken into account when considering the position.

If the Debentures had been secured by a floating charge only, or such a charge existed in addition to the specific one, then the whole of the assets are available to meet the demands of the holders, and their claims would have to be met before any other liabilities could be paid. In such a case the cover is £653,000 (assuming Prepaid Expenses are not

recovered) against a debt of £121,500, so that the liability is covered approximately 5·375 times. It will be noted that in this case the liability for accrued interest must be taken into account, since it is payable out of the assets even as is the capital sum owing. As already stated, many issues of Debentures are made on condition that a sinking fund for the repayment of the Debentures must be created, and the investments or moneys set aside for this purpose are usually in the hands of trustees acting on behalf of the debenture-holders. Any asset of this nature therefore forms additional security for the Debenture issue and increases the cover, so that in our example the real position is as follows—

Land and Buildings specifically charged . . .	£190,000
Sinking Fund Investment	27,500

giving a total cover of £217,500 against the liability of £120,000 or 1·8125 times the amount. Any surplus remaining after realization of the asset and repayment of the sums owing is, of course, available for meeting other obligations which exist.

In the unlikely event of a Debenture carrying a specific charge on definite assets not being fully covered owing to a heavy shrinkage in the value of such asset, the holders would become ordinary unsecured creditors ranking *pari passu* with the other unsecured and non-preferential creditors for any balance remaining unsatisfied after applying the proceeds of the sale of such asset.

Debenture-holders are also concerned in the continued ability of the debtor company to pay the interest on the loan during its life. Failure on the part of the company to do this would usually enable the trustee for the debenture-holders to appoint a receiver,[1] a procedure which generally

[1] This right may not have been given in the instrument governing the issue of the Debentures.

leads to the winding-up of the company, and the forced realization of the assets with considerable loss to the shareholders and often also to unsecured creditors.

Interest on an issue of Debentures is a definite expense of the business and is chargeable against the profits, hence, even though the interest has to be paid whether profits are made or not, the profits made are important as reflecting the ability of the company to meet its obligations in this respect. The profits for the year as shown in the Balance Sheet are those remaining after such interest has been charged, and to get a proper comparison we must add back this interest; thus the amount of profits available in our example is £89,000 plus a year's interest on the Debentures, viz. £6000, making £95,000 in all. Thus the profits for 1936 cover the amount of the Debenture interest 15·83 times, a very satisfactory position. If the amount of profits showed considerable fluctuations, an average of these for a period of, say, three or five years should be calculated to make sure that fallacious conclusions were not drawn.

When a sinking fund for repayment has to be created, annual allocations from profits must be made for this purpose and the ability to make them is equally important from the debenture-holders' point of view. If we assume that £10,000 per annum has to be set aside for this purpose, the service of the Debentures calls for this sum in addition to the interest, or a total of £16,000, so that the profits of £95,000 cover this only just over 5·9 times.

When no profits are made, the Debenture interest as well as the sinking fund allocation has still to be met and the former would result in a loss being shown when the business "breaks even" (i.e. when its profits on operations are just exhausted by selling, distribution, and general administration expenses), while the appropriation for the latter will increase the debit balance on the Profit and Loss Account. In cases where the business shows a loss on its actual trading

activities this loss will obviously be increased by these additional sums. When this happens, the payment of the interest has to be made out of capital, but the investment of the Sinking Fund allocation changes an asset from Cash to an investment which is earmarked, and hence both sums reduce the working capital available for financing future trading operations. If losses continue to be made, the net assets of the business will likewise shrink, with the result that when the Debentures are secured by a floating charge the cover for the debenture-holders will diminish, and the time may come when they may find it expedient to apply to the Courts for the appointment of a Receiver on the grounds that their debts are in jeopardy. It should, however, be emphasized again that the withdrawal of money to invest for the Debenture Redemption Fund does not diminish the assets as does the payment of interest.

In the case of our model example it must be borne in mind that there are Redeemable Preference shares, and that as and when these are redeemed out of profits there *must* be transferred from the profits to the Capital Redemption Reserve Fund a sum equal to the amount of the shares redeemed. The sum necessary to repay the Redeemable Preference shares also reduces the liquid assets.

If there is a suggestion that additional Debentures are to be issued then the question of security arises. Unless additional assets are to be charged, the existing holders are not likely to look with favour on an additional issue which will rank *pari passu*, as their margin of security will thereby be affected not only as regards capital but in respect of interest. If the new Debentures carry a second charge then assets surplus to the first issue will have the amount of the fresh issue deducted before anything becomes available for other parties. The additional money raised by such new issue will, of course, improve the amount of the net assets and this fact must not be overlooked.

3. FROM THE POINT OF VIEW OF SHAREHOLDERS

(a) Preference Shareholders

Preference shares are another form of prior charge upon the profits, and also, in the majority of cases, for return of capital, and the rights and interest of the holders of such shares differ from those of Ordinary shareholders who are usually entitled to whatever remains when all other claims have been met, or in other words "the equity." Preference shares, however, differ from Debentures in that the fixed rates of dividend payable upon them may only be distributed *out of profits*, whereas, as we have already seen, in the case of Debentures the interest they carry is a charge on the business, and not on the profits, and must be paid whether profits have been made or not. It follows that the holders of Preference shares are interested primarily in the profit-earning capacity of the business, even though the directors are authorized by the Companies Act to make such provision as they think necessary for Reserves before paying dividends on any class of share. Various classes of Preference shares may be issued, and generally each subsequent class ranks after those preceding it, both for payment of dividends and for return of capital when priority in this respect is given to them.

Our model Balance Sheet shows two classes of such shares, viz. 75,000 6 per cent Preference shares of £1 each and 40,000 6½ per cent Preference shares also of £1 each—the latter being redeemable out of profits by 30th June, 1940, by equal annual amounts. Let us assume, as is more than probable, that the first-named is entitled to priority of payment of dividends over the second. The interest on this first class amounts to £4500 per annum, and on the basis of the profits for the past year (£89,000) less the amount necessary to be allocated to the Debenture Redemption Sinking Fund (£10,000), i.e. £79,000, is covered no less than seventeen and a half times, while the balance of profits

remaining is £32,825 (i.e. £84,075 less £15,000 transferred to General Reserve, £10,000 credited to Debenture Redemption Reserve, and £26,250 Ordinary share dividend), is sufficient to meet the Debenture interest (£6,000), sinking fund allocation (£10,000), and this dividend (£4,500), in all £20,500, for the next nineteen months even though no additional profits are made in the interim. The position of these shareholders will be materially improved when the Debentures are repaid in 1950 as then no charge will exist against the profits in respect either of interest or sinking fund.

The Redeemable Preference shares must next be considered. As redemptions take place annually on 30th June the interest charge is, as already shown, a reducing one, and, provided profits continued to be made, dividends are paid and redemptions take place, the liability will finally cease in June, 1940. For the next year £2275 will be required for dividend and £10,000 for the Capital Redemption Reserve. This fact alters the position ascertained above as regards the availability of the balance of profits carried forward, for this sum of £32,825 would in the event of no further profits being made, be used by the directors as follows—

(1)	To provide for Debenture Interest	£6,000
(2)	To provide for allocation to Debenture Redemption Fund	£10,000

leaving £16,825, which might be applied at the discretion of the directors in meeting—

(1)	the 6% Preference dividend of	£4,500
(2)	the 6½% Preference dividend of	2,275
(3)	the amount in respect of redemption of 6½% Preference shares	10,000
		£16,775

leaving a small balance of £50, from which it will be seen that the amount of profits carried forward is adequate to provide for the next year's requirements.

On the assumption that redemption will take place at the proper time, the requirements for interest on these shares will be: 1937, £2275; 1938, £1625; 1939, £975; 1940, £325, and apart from the allocations to Capital Redemption Reserve these requirements are amply covered. On the assumption that the previous years' profits are normal, there will be available for the payment of this dividend £89,000 less £10,000 allocated to Debenture Redemption Fund, and £4500 for the 6 per cent Preference share dividend or £74,500, and this covers the next dividend nearly thirty-three times.

The security for the capital must now be considered. It is generally provided that Preference shares are to be repaid in full, together with any arrears of dividend which may be outstanding in priority to any other class of shareholders. Let us assume that the 6 per cent shares rank before the 6½ per cent ones, that the factors already considered apply, and that the assets are of the value stated in the Balance Sheet, then the capital cover for each as at 31st December, 1936, will be found in the following table. In other words we are regarding the business as a going concern, and not dealing with what would happen in a winding-up.

The statement, giving effect to the above assumptions (shown on page 268), sets out the position in such a manner that the position of all the interested parties is easily and simply ascertained.

If any dividends were accrued or in arrear the items due to the Preference shareholders would have to be increased by the amount of such dividends, e.g. if Preference dividends were payable on 1st April or 1st October then on 31st December a quarter's dividend would have accrued and this would be added to the capital sum.

			£
Land and Buildings mortgaged as Security for Debenture-holders			190,000
Add Investments representing the Debenture Redemption Fund			27,500
Security for Debenture-holders			217,500
Deduct Amount of Debentures outstanding and accrued interest thereon			121,500
Surplus available for Creditors			96,000
Add Other Fixed Assets—			
Goodwill, Patents, and Trade-marks		£35,000	
Plant and Machinery		95,000	
Furniture and Fixtures		3,500	
Loose Tools and Plant		6,000	
Motor Vehicles		4,000	
		143,500	
Shares and Debentures in Subsidiaries		100,000	
Floating Assets	£182,075		
Less—			
Amount of Debts secured on some item	6,750		
		175,325	
Investments in Allied and Associated Companies		10,000	
			428,825
Total of Assets available for Creditors			524,825
Deduct Creditors—			
Bills Payable		£11,750	
Trade Creditors		47,350	
Other Creditors		1,300	
Due to Subsidiaries		7,850	
			68,250
Surplus available for First Preference Shareholders			456,575
Deduct 6% Preference Shares			75,000
Surplus available for Second Preference Shareholders			381,575
Deduct 6½% Preference Shares			40,000
Surplus			£341,575

It will now be seen that the 6 per cent Preference shares amounting to £75,000 are covered by assets to the value of £456,575 or just over six times, while the amount of £40,000 6½ per cent Redeemable Preference shares is

covered by assets of £381,575 or over nine and a half times. The large excess of assets ensures that even though realization should be forced through liquidation there would have to be a very large loss, as compared with the book value, before those interested in the Preference shares are faced with any loss at all. It should, however, be borne in mind that as dividends are paid and transfers to specific funds are made, the results will not be quite so good. This is seen in the statement on page 271.

(*b*) **Ordinary Shareholders**

Unless there be a still further class of proprietors interested, e.g. Deferred shareholders, the Ordinary shareholders are generally entitled to all profits remaining after the prior claims of Preference shareholders have been met,[1] hence, in the example, the balance of profits remaining belongs to this class of shareholder. Similarly, such holders of Ordinary shares are entitled to the whole of the surplus of the assets remaining after providing for prior claims. This is the "equity" to which reference has already been made. Thus we find in this case that out of the profits of the year 1936 there is available for this class £61,575, made up as follows—

Profits for the year, 1936		£89,000
Less—		
6% Preference Dividend for year	£4,500	
6½% Preference Dividend for year	2,925	
Transfer to Debenture Redemption Fund	10,000	
Transfer to Capital Redemption Fund	10,000	
		27,425
		£61,575

The earning capacity of these shares should be on the basis of their paid-up value and is, therefore:

$$\frac{61,575}{175,000} \times 100 = 35{\cdot}2 \text{ per cent}$$

[1] Here again the Memorandum and Articles of Association of the company must be consulted as to the actual rights of the various classes of shareholders. If there be Participating Preference shares then the balance of profits after meeting prior claims must be apportioned in the manner prescribed.

approximately. If we are looking at the matter of the percentage earning *per share* the calculation would be

$$\frac{61,575}{200,000} \times 100 = 30{\cdot}7875 \text{ per cent.}$$

The former method is preferable as dividends are generally declared as a percentage on the paid-up value of the shares, though occasionally we find that a dividend of a certain amount per share is paid. As the $6\frac{1}{2}$ per cent Preference shares are being redeemed the charge for interest is steadily falling and will entirely disappear after four years, and subsequently no further sums will be required to be transferred to the Capital Redemption Fund, thus materially increasing the sums available for the Ordinary shareholders.

From the point of view of the capital the whole of the surplus assets shown in the statement on page 268, and amounting to £341,575 belongs to these Ordinary shareholders as it is customary to find that where Preference shareholders are entitled to repayment of capital in priority to the Ordinary shareholders they do not share in any surplus. When no priority for repayment of capital exists they would generally share in any surplus *pro rata* with other interested shareholders. The *capital value of each share* of £1 on which 17s. 6d. has been paid is therefore $£\frac{341,575}{200,000}$ or £1 14s. 1·8d. The increased capital value is due to the various Reserves which have been created and to the undivided balance of profit shown in the Balance Sheet as at 31st December, 1936, carried forward. This sum of £341,575 can also be ascertained as follows—

Paid-up Capital	£175,000
Debenture Redemption Sinking Fund . .	27,500
General Reserve	45,000
Capital Redemption Reserve	10,000
Profit and Loss Balance	84,075
	£341,575

As already stated, this shows the position as at 31st December before any dividends are paid and is therefore a cum. div. value; consequently the payment of any Ordinary dividend will reduce the capital value.

Let us now give effect to the suggested allocations and distributions set out on page 199, viz.

A transfer of £15,000 to Reserve.
A transfer of £10,000 to Debenture Redemption Fund, and the investment of this amount.
The payment of a dividend of 15% free of tax on the Ordinary shares amounting to £26,250.

The statement on page 268 will now appear as follows—

					Cover
Land and Building mortgaged as security for the Debenture-holders				£190,000	
Add Investments representing the Debenture Redemption Fund				37,500	
Security for Debenture-holders				227,500	1·87 times
Deduct Amount of Debentures outstanding and Interest thereon				121,500	
Surplus available for Creditors				106,000	
Add—					
Fixed Assets as enumerated on page 268			£143,500		
Shares and Debentures in Subsidiary Companies			100,000		
Floating Assets as enumerated		£175,325			
Less—					
Dividend paid	£26,250				
Investment made for Debenture Redemption Fund	10,000				
		36,250			
			139,075		
Investments in Allied and Associated Companies			10,000		
				392,575	
Total of Assets available for Creditors				498,575	
Deduct Creditors as set out				68,250	7·3 times
Surplus available for 6% Preference Shareholders				430,325	
Deduct 6% Preference Shares				75,000	5·74 times
Surplus available for 6½% Preference Shareholders				355,325	
Deduct 6½% Preference Shares				40,000	8·88 times
Surplus available for Ordinary Shareholders				£315,325	

It will now be seen that the additional sum invested for the Debenture Redemption Fund results in the cover of the debenture-holders increasing from 1·8125 to 1·87 times, but the surplus available for other purposes is larger by the same amount, although the floating assets have fallen to a like extent. The payment of the dividend, however, definitely reduces the assets and hence the cover available for the creditors and shareholders. The transfer to the General Reserve does not change the position at all, as no assets are affected. The value of the Ordinary shares after the payment of the dividend will be: $\frac{315,325}{200,000}$ or £1 11s. 6d. approx.

The sum of £315,325 can also be made up in the following way—

			£
Paid-up Capital			175,000
Debenture Redemption Sinking Fund			37,500
General Reserve			60,000
Capital Redemption Reserve			10,000
Profit and Loss Balance at 31st December		£84,075	
Less—			
Transfer to General Reserve	£15,000		
Transfer to Debenture Redemption Reserve	10,000		
Dividend on Ordinary Shares	26,250		
		51,250	
			32,825
			£315,325

There is a tendency to-day to present statements which will serve to show how various parties are covered and the figures in the model Balance Sheet as at 31st December, 1936, could then be set out in the form shown on pages 273-4.

Such a statement discloses in a very clear manner the total of the proprietors' interest in the assets of the company, after provision has been made for all liabilities, and indicates whether the capital paid up has been preserved intact, and the extent to which it has been augmented by retaining profits in the business, or reduced by losses which may have

INTEREST OF PROPRIETORS

		£	£
CAPITAL ISSUED AND PAID UP—			
75,000 6% Preference Shares of £1 each fully paid		75,000	
40,000 6½% Redeemable Preference Shares of £1 each fully paid		40,000	
200,000 Ordinary Shares of £1 each, 17s. 6d. paid		175,000	
			290,000
General Reserve		45,000	
Capital Redemption Reserve		10,000	
Debenture Redemption Sinking Fund		27,500	
Profit and Loss Account balance		84,075	
			166,575
Total			£456,575

This is represented by—

FIXED ASSETS

		£	£
Land and Buildings as valued in 1930 plus additions less Depreciation		190,000	
Investments representing the Debenture Redemption Sinking Fund		27,500	
		217,500	
Less—			
Mortgage Debentures outstanding and interest accrued thereon		121,500	
		96,000	
Goodwill, Patents, and Trade-marks at Cost less depreciation		35,000	
Plant and Machinery at Cost less depreciation		95,000	
Furniture and Fixtures at Cost less depreciation		3,500	
Loose Tools and Plant as valued at 31st December, 1936		6,000	
Motor Vehicles at Cost less depreciation		4,000	
		239,500	
Shares in Subsidiary Companies at Cost	£75,000		
Debentures in Subsidiary Companies	25,000		
		100,000	
Net Fixed Assets			339,500

FLOATING AND LIQUID ASSETS

Amounts owing by Subsidiary Companies .		10,000	
Stock-in-trade as certified by the Managing Directors . . .	£81,500		
Less Advances secured on part .	£ 6,750		
		74,750	
Bills Receivable		17,500	
Trade Debtors, less Reserves for Doubtful Debts		58,000	
Other Debtors, less Reserves for Doubtful Debts		8,000	
Prepaid Expenses		75	
Cash at Bank and in Hand		7,000	
		175,325	
Less Sundry Creditors—			
Bills Payable	£11,750		
Trade Creditors	47,350		
Other Creditors	1,300		
Amounts owing to Subsidiary Companies . . .	7,850		
		68,250	
Net Floating Assets = Net Working Capital .			107,075
Investment in Allied and Associated Companies			10,000
Total . . .			£456,575

taken place. It shows clearly the extent to which the interest of the proprietors is represented by fixed and floating assets respectively, and the net amount of each class after providing for all charges upon them, and liabilities which have to be met out of them. In our example we can see at once that the whole of the capital and a considerable part of the undivided profits which have been "dug in" have been sunk in fixed assets, thus making it apparent that many of the extensions have been financed from the resources of the business and resulting in the earning capacity increasing without the need for borrowing or raising additional capital.

It also reveals the liquid position of the company and the amount of the net working capital, thus indicating whether the circulating capital is adequate in amount to finance the trading operations of the business. By showing the totals

of the various groups comparison is facilitated, and enables fluctuations in the fixed and circulating assets to be seen more accurately. Further, it is advantageous to a person with only a limited knowledge of accounting procedure as it enables him to understand the general form of a Balance Sheet used in this country. A statement similar to that given above is used to a great extent in the United States of America, particularly in advertisements of financial organizations.

CHAPTER XI

APPLICATION OF PRINCIPLES OF CRITICISM TO ACTUAL BALANCE SHEETS AND FINANCIAL STATEMENTS

1. An Hotel Company
2. A Manufacturing Company
3. Methods of Financing
4. A Holding Company
5. Results of a Reconstruction

Having considered the general principles of analysis of Balance Sheets, let us apply them to a small number of selected examples.

1. AN HOTEL COMPANY

The following is a copy of the actual Balance Sheet of a well-known hotel, and one which for some years after its formation earned large profits for its proprietors but subsequently suffered badly from competition, with the result that the position rapidly became less satisfactory.

THE "BLANK" HOTEL, LTD.

Balance Sheet, 30th April, 1934

	£ s. d.	£ s. d.		£ s. d.
Capital— Authorized— 8000 6% Cumulative Preference Shares of £10 each . .	80,000 0 0		Freehold Property, Furniture, Fittings, etc., at Cost plus additions . .	474,951 17 7
150,000 Ordinary Shares of £1 each . .	150,000 0 0		Policy in "Normal" Assurance Co. for £260,000, payable 1st Dec., 1955, to secure First Mortgage Debenture Stock — Surrender Value at 30th April, 1934 . . .	72,019 0 0
	£230,000 0 0			
Issued— 7695 6% Cumulative Preference Shares of £10 each fully paid (*Note.* Dividend has been paid up to 30th April, 1930.)	76,950 0 0		Sundry Debtors and Payments in advance, less Reserve	4,437 12 0
			Stocks of Wines, Spirits, etc., as ascertained and valued by the Company's officials	24,920 10 11
150,000 Ordinary Shares of £1 each fully paid	150,000 0 0		Cash at Bank and in Hand . . .	2,230 14 9
		226,950 0 0		
Carried forward		£226,950 0 0	Carried forward	£578,559 15 3

	£	s.	d.	£	s.	d.		£	s.	d.
Brought forward				226,950	0	0	Brought forward	578,559	15	3
5% First Mortgage Debenture Stock as per last Balance Sheet .				260,000	0	0				
Debenture Stock Interest unpaid and accrued .				32,933	6	8				
Premiums on Sinking Fund Policy unpaid and interest accrued .				6,537	14	7				
Sundry Creditors—including provision for Income Tax and accruing liabilities . .				9,190	19	9				
Reserves: Amount as per last Balance Sheet . . .	54,697	11	5							
Add Increase in Surrender Value of Sinking Fund Policy for the Year . .	2,099	0	0							
	56,796	11	5							
Deduct Balance as per Profit and Loss Account .	13,848	17	2							
				42,947	14	3				
				£578,559	15	3		£578,559	15	3

If we redraft this on the lines suggested on page 273, the following results will be shown—

Interest of Proprietors

	£	s.	d.	£	s.	d.
Capital Issued and Paid Up—						
7695 6% Cumulative Preference Shares of £10 each, fully paid				76,950	0	0
150,000 Ordinary Shares of £1 each, fully paid . .				150,000	0	0
				226,950	0	0
Reserve	£54,697	11	5			
Add Increase in Surrender Value of Sinking Fund Policy	2,099	0	0			
	56,796	11	5			
Less Loss for Year	13,848	17	2			
				42,947	14	3
Total . .				£269,897	14	3

This is represented by—

FIXED ASSETS—			
Freehold Property, Furniture, Fittings, etc.		£474,951 17 7	
Policy in "Normal" Assurance Co., Ltd., Surrender Value at 30th April, 1934	£72,019 0 0		
Less Premiums Unpaid and interest thereon accrued	6,537 14 7		
		65,481 5 5	
Available for Debenture-holders[1]		540,433 3 0	
Deduct 5% First Mortgage Debenture Stock outstanding	260,000 0 0		
Add Interest accrued thereon	32,933 6 8		
		292,933 6 8	
Net Fixed Assets			247,499 16 4
FLOATING AND LIQUID ASSETS—			
Stock of Wines, Spirits, etc.		24,920 10 11	
Sundry Debtors and Payments in Advance		4,437 12 0	
Cash at Bank and in Hand		2,230 14 9	
		31,588 17 8	
Deduct Sundry Creditors		9,190 19 9	
Net Floating Assets = Net Working Capital			22,397 17 11
			£269,897 14 3

It will be seen that the Mortgage Debentures and outstanding interest are secured 1·84 times, while the Sundry Creditors are covered 3·44 times, but the favourable position of the last-named is due solely to the fact that the interest which is owing on the Debentures is not treated as a current liability. If it were, then the liquid assets would not cover the amounts payable. At the time the Balance Sheet was prepared, the company in question had arranged a moratorium with the debenture-holders as to the payment of the

[1] It is assumed that the Mortgage Debentures are secured by a mortgage on the Freehold Property, Furniture, Fittings, etc. If they also had a floating charge on all the assets their position would be greatly improved.

interest and also the premiums on the Sinking Fund Policy. The outstanding premium would be regarded by the assurance company as an advance against the surrender value of the policy and for this reason the amount is deducted from the policy value.

Let us now consider the position of the shareholders. If, as was the case, the Preference shareholders have prior right to return of capital, and also to receive any dividends not paid to them (and in the event of winding-up these arrears of dividend have to be paid whether or not any profits have been made), the available assets must be first applied to meeting their claims. There are four years' dividends in arrear amounting to no less than £18,464. Assuming that the value at which the assets stand in the books is actually realized, those available for the Ordinary shareholders as shown by the statement above are—

	£	s.	d.
Net Fixed Assets	247,499	16	4
Net Floating Assets	22,397	17	11
	269,897	14	3

These would be applied as follows—

To meet 6% Preference Shares .	£76,950			
,, 4 years' dividends thereon .	18,468			
		95,418	0	0
		£174,479	14	3

It will now be appreciated that if any losses occur on the realization of the assets, such losses must fall on the Ordinary shareholders and on them only. For example, if the Net Fixed Assets shown above were sold for £220,000 while the Net Floating Assets produced only £18,000, there would then be only £238,000 to be used to meet the claims of the proprietors and this would be applied firstly in repaying the Preference share capital and arrears of dividend as shown above and would leave only £142,582 against the liability to the remainder of the proprietors of £150,000. It may be argued that if the assets realize a figure in excess of

that shown in the books then the Ordinary shareholders will benefit to a corresponding extent, and this is so; but in the majority of cases where liquidation occurs losses are made on the sale of the assets. When a business amalgamates with another or others, then large profits are frequently made and Ordinary shareholders receive a handsome additional sum over and above the capital standing to their credit. As previously stated, possible profits should be ignored, and thus from the point of view of a person desirous of ascertaining the position, it is essential that all probable and possible losses should receive consideration. So far we have assumed that the value of the assets represented their actual market worth, though, as we have seen (page 150), these values are most likely to be on the basis of the business as a going concern and not on the market value at all.

2. A MANUFACTURING COMPANY

Our next example shows the Profit and Loss Statement and Balance Sheet of a manufacturing concern which has had an unfortunate experience, and shows a large debit balance on Profit and Loss Account. The auditor's report is also appended.

PROFIT AND LOSS ACCOUNT

Dr. For the Year ended 30th November, 1935 *Cr.*

	£	s.	d.		£	s.	d.
To Selling, Distribution, and Administration Charges	78,858	11	10	By Gross Profit on Trading .	47,977	17	11
,, Depreciation and Obsolescence	5,912	11	0	,, Rents Receivable . .	862	19	0
,, Bank Interest and Charges	4,038	18	7	,, Transfer Fees . . .	42	17	6
,, Bad and Doubtful Debts .	1,092	12	4	,, Balance carried down .	41,857	13	4
,, Directors' Fees . .	838	14	0				
	£90,741	7	9		£90,741	7	9
To Balance brought down .	41,857	13	4	By Income Tax, Schedule A, Recoverable . . .	2,231	2	0
,, Fire Claim Costs . .	6,380	5	0	,, Balance carried to Balance Sheet	50,439	5	10
,, Provision for Discount and Allowances to Customers . . .	4,332	9	6				
, Amortization of Lease .	100	0	0				
	£52,670	7	10		£52,670	7	10

H. Y. (LONDON) LTD.

Balance Sheet as at 30th November, 1935

Liabilities	£ s. d.	£ s. d.
Capital		
Authorized—		
325,000 8% Cumulative Participating Preference Shares of £1 each	325,000 0 0	
3,500,000 Ordinary Shares of 1s. each	175,000 0 0	
	£500,000 0 0	
Issued—		
300,000 8% Cumulative Participating Preference Shares of £1 each fully paid	300,000 0 0	
3,300,000 Ordinary Shares of 1s. each fully paid	165,000 0 0	
		465,000 0 0
Reserve as at 1st December, 1934	20,000 0 0	
Less—		
Transfer to Loose Tools and Movable Plant £2,500		
Transfer to Freehold Land and Buildings 17,500		
	20,000 0 0	
Bank Overdraft, including interest accrued, secured by Debentures		60,245 9 10
Creditors		
Trade, and provision for accrued and outstanding charges, including H. Y., Esq., £944 7s. 6d., and Fire Claim Costs	28,307 17 5	
Bills Payable	10,405 15 0	
		38,713 12 5
		£563,959 2 3

Note. There is a Contingent Liability for Bills under Discount amounting to £1850 8s. 8d.

There are arrears of Cumulative Preference Dividend amounting to £120,000.

Assets	£ s. d.	£ s. d.
Freehold Land and Buildings, Plant and Machinery, as per valuations of Messrs. Fuller Horsey, Sons & Cassell, at 29th November, 1927, plus additions at cost less Sales, value of Property, Plant, and Machinery destroyed by fire, and Depreciation on Plant and Machinery—		
Freehold Land and Buildings as at 1st December, 1934	155,738 4 11	
Deduct—		
Sales less additions £8,702 14 7		
Transfer from Reserve 17,500 0 0		
	26,202 14 7	
		129,535 10 4
Plant and Machinery as at 1st Dec., 1934	47,822 17 0	
Additions less Sales	294 17 5	
	48,117 14 5	
Deduct Depreciation	3,608 16 10	
		44,508 17 7
		174,044 7 11
Leasehold Property at Cost of Amortization		300 0 0
Motor Vehicles at cost less depreciation to 1st December, 1934	4,508 10 7	
Additions less Sales	250 0 0	
	4,758 10 7	
Deduct Depreciation and Obsolescence	2,303 14 2	
		2,454 16 5
Loose Tools and Movable Plant as at 1st December, 1934	6,500 0 0	
Deduct Transfer from Reserve	2,500 0 0	
		4,000 0 0
Stocks and Work-in-progress as taken and valued by the Company's officials		110,441 9 5
Trade and Sundry Debtors (including H. Y., Ltd., in Voluntary Liquidation, £932 14s. 6d.), Loans and Payments in advance, less Reserves for Doubtful Debts and Discounts		67,770 7 0
Suspense Account *re* P. & T. Co. Ltd.		932 4 5
Cash in Hand		176 7 0
Profit and Loss Account: Balance brought forward from last accounts	153,400 4 3	
Add Balance as per Profit and Loss Account	50,439 5 10	
		203,839 10 1
		[illegible]

REPORT OF THE AUDITORS TO THE MEMBERS OF H.Y. (LONDON) LTD.

WE have audited the above Balance Sheet. Nothing is included in the Balance Sheet in respect of any claim the Company may have in regard to the loss by fire in 1933 and the costs of the subsequent arbitration proceedings. We have insufficient information to indicate what part of the loss on the year's trading is attributed to the revised basis of stock valuation mentioned in the Directors' Report. Subject to the foregoing remarks and also to the value of the Freehold Land and Buildings, Plant and Machinery, and the Stocks and Work-in-progress to which reference is also made in the Directors' Report, we have obtained all the information and explanations we have required and, in our opinion, the Balance Sheet is properly drawn up so as to exhibit a true and correct view of the state of the Company's affairs according to the best of our information and the explanations given us and as shown by the books of the Company.

LONDON. P. M. M. & Co.,
20th May, 1936. *Chartered Accountants.*

If we now redraft on the suggested plan we get the following results—

	£	s.	d.
Interest of Proprietors—			
Capital Issued and Paid Up			
300,000 8% Cumulative Participating Preference Shares at £1 each fully paid	300,000	0	0
3,300,000 Ordinary Shares of 1s. each fully paid	165,000	0	0
	465,000	0	0
Deduct Debit Balance on Profit and Loss Account	203,839	10	1
	£261,160	9	11

This is represented by—

				£	s.	d.	£	s.	d.
FIXED ASSETS									
Freehold Land, Buildings, Plant and Machinery				129,535	10	4			
Other Plant and Machinery				44,508	17	7			
Leasehold Property				300	0	0			
Motor Vehicles				2,454	16	5			
Loose Tools and Movable Plant				4,000	0	0			
Fixed Assets							180,799	4	4
FLOATING ASSETS									
Stock and Work-in-progress				110,441	9	5			
Trade and Sundry Debtors				67,770	7	0			
Suspense Account				932	4	5			
Cash in Hand				176	7	0			
				179,320	7	10			
Deduct—									
Sundry Creditors and Bills Payable	£38,713	12	5						
Bank Overdraft	60,245	9	10						
				98,959	2	3			
Net Floating Assets							80,361	5	7
							£261,160	9	11

The Bank Overdraft has been treated as a current liability, as indeed it is, for the Debenture which has been issued to cover this advance is purely collateral, and would only be put into force in the event of the indebtedness not being discharged. Such Debentures usually carry a floating charge on all assets.

The position disclosed is a very interesting one, since the total net assets amount to only £261,160 9s. 11d., whereas there is due to the Preference shareholders no less a sum than £300,000 for capital and £120,000 for arrears of their fixed 8 per cent cumulative dividend, so that the whole of the Ordinary capital has been lost and the Preference shareholders at this time would suffer a loss on their claims of no less a sum than £158,839 10s. 1d. The directors, however, report that the values of freehold land and buildings, plant and machinery is "in excess of their present-day value on a going concern basis," and also that they "take the view that further provision for depreciation of stocks may prove necessary and propose to give instructions for the stocks to be valued by independent valuers," while they are obtaining legal advice as to whether all or part of the sum shown in the Suspense Account is recoverable. The actual loss is, therefore, bound to be much greater than is disclosed above.

3. METHODS OF FINANCING

A further important point arises from this example. The creditors will not be likely to take action to wind up the company so long as their claims are met, as they are likely to be. The Ordinary shareholders, having lost their capital, will probably lose interest in the company which cannot well suggest any scheme of reorganization until such time as profits are again being made. They have nothing to gain or lose by winding up the company. The holders of Preference shares will realize that the arrears of dividends are irrecoverable, that a substantial portion of their capital

has disappeared, and that when costs of liquidation are taken into consideration, and the losses on realization which would take place if the company be forced into liquidation, very little, if any, of their capital will be returned to them. In such circumstances it is most unlikely they will take any action whatever, and the company, which has a really good product, may still continue and eventually return to a profit-earning stage when it may afford some return to the shareholders. On the other hand, if long-term Debentures existed, there is no doubt that the holders of these would have taken action as soon as the margin of security for their loans showed any material diminution, and obtained the appointment of a Receiver who would have realized the assets in their interests. This would probably have been at a much earlier date than that of the Balance Sheet shown.

When times are good, business expanding and profits increasing, Debentures confer considerable benefits on the shareholders of a business, for, so long as the profits earned on the money provided from their issue exceeds the interest payable upon them, the excess becomes additional profits available for the shareholders. Creditors, however, do not favour the issue of Debentures by a debtor company, for the prior claims of debenture-holders may seriously prejudice their position. The following example illustrates the benefit which Ordinary shareholders can obtain.

A company has an issued and paid-up capital of £100,000 in fully paid Ordinary shares of £1 each, and has been earning on an average 20 per cent on such capital. It now needs an additional sum of £100,000 to finance its operations adequately. Such a sum could be raised by—

(1) An issue of 5 per cent Debentures repayable in twenty years; or

(2) An additional issue of Ordinary shares.

Let us take three different hypotheses, viz. that the additional funds will earn—

(*a*) No further profits at all, it being necessary to replace exhausted assets;

(*b*) Profits at the rate of 10 per cent (i.e. half the rate of the original capital); or

(*c*) The same rate of profit as the remainder of the capital.

	Case (*a*)	Case (*b*)	Case (*c*)
1. Issue of Debentures			
Profits available . . .	£20,000	£30,000	£40,000
Debenture Interest absorbs .	5,000	5,000	5,000
Leaving available for Ordinary Share Capital of £100,000 .	15,000	25,000	35,000
Percentage to Ordinary Share Capital	15%	25%	35%
2. Issue of Additional Ordinary Shares (making a Capital of £200,000)			
Profits available . . .	20,000	30,000	40,000
Percentage to Ordinary Share Capital	10%	15%	20%

A study of the figures at once shows that the Debentures are much more advantageous to the existing Ordinary shareholders, even when the extra funds earn no more profits, but as against this is the prior payment of the interest on the Debentures during their life, and any diminution of profits will therefore fall upon the shareholders while, as already explained, this interest has still to be paid even when losses are made. If losses on assets occur, these will fall upon the shareholders since the Debentures will be secured by a charge on some or all of the assets—thus supposing the assets, which must equal the total indebtedness

of £200,000 (i.e. Debentures £100,000, Ordinary shares £100,000), are sold for £150,000 and that the Debentures carry a floating charge, this sum must be applied first in repaying the Debentures, leaving £50,000 for the shareholders, who thus lose 50 per cent of their capital. If, however, the issue had increased the Ordinary capital instead of Debentures then the £150,000 will be divided *pro rata* between them or a loss of only 25 per cent of the capital. If, however, there were creditors these would have to be paid before any return was made to the shareholders. Thus while Debentures are beneficial when profits are high they are much less satisfactory when losses arise, or winding up ensues. The additional capital could, of course, be raised by means of Preference shares, and these usually carry preferential right to return of capital. In such a case, except for the fact that interest will be higher and not be payable except when profits are available, the result will be on exactly the same lines as for Debentures with very similar results to the Ordinary shareholders.

If the amount of issues (i.e. Debentures or Preference shares) carrying prior charges on profits or assets is large as compared with the amount of Ordinary shares, we say that there is "high-gearing" of the capital. Conversely, when the Ordinary shares are considerably in excess of the prior charges the result is "low-gearing." While in both cases the claims of Ordinary shareholders are postponed till prior charges have been met, yet, when such priority claims are high, any fall in profits is apt to have a serious effect on the position of the Ordinary shareholders. This will be seen in the case where a company shows the following items in its Balance Sheet—

Issued and Paid-up Capital	£	£
300,000 6% Preference Shares of £1 each fully paid	300,000	
150,000 Ordinary Shares of £1 each fully paid	150,000	
		450,000
£250,000 5% First Mortgage Debentures		250,000

Here the issues carrying prior charges amount to no less than £550,000 against Ordinary capital of £150,000. Before the holders of these Ordinary shares can get any dividends, £12,500 has to be found to pay Debenture interest, and £18,000 for the Preference dividend—a total of £30,500. This means that the whole of the sum of £700,000 has to earn approximately 4·36 per cent in profits to satisfy these prior claims, while the payment of such a large sum as £30,500 out of cash is a considerable drain on the liquid resources of the company, particularly when business is not up to normal. If, however, the position were as follows—

	£	£
100,000 6% Preference Shares of £1 each fully paid	100,000	
500,000 Ordinary Shares of £1 each fully paid .	500,000	
		600,000
100,000 5% First Mortgage Debentures . .		100,000

we shall only require £5000 to meet Debenture interest, and £6000 for the Preference dividend, or £11,000 in all. To meet these prior calls it will only be necessary for the profits to equal 1·59 per cent on the total amount raised to finance the business. Suppose divisible profits earned amount to £38,000, then in the first case there will be only £7500 available for Ordinary shareholders, or 5 per cent; whereas in the second case the figure would be £27,000 or 5·4 per cent, a small, but significant increase. If profits fell to £29,000, then prior claims cannot be fully met in the former, but would still show £18,000 surplus in the latter, permitting a dividend of 3·6 per cent.

4. A HOLDING COMPANY

The following Balance Sheet is a most interesting example. It is given in its entirety, including the summary of the assets of the subsidiary companies—

THE A. C. M. TRUST LTD. BALANCE SHEET, 31ST OCTOBER, 1934

	£	s.	d.	£	s.	d.
SHARE CAPITAL—						
Authorized	£7,300,000	0	0			
Issued—						
800,000 7½% Cumulative Preference Shares of £1 each fully paid	800,000	0	0			
1,800,000 7½% Cumulative "B" Preference Shares of £1 each fully paid	1,800,000	0	0			
4,650,000 Ordinary Shares of £1 each fully paid	4,650,000	0	0			
				7,250,000	0	0
LOAN against security, and accrued interest				2,536	12	7
LOANS FROM SUBSIDIARY COMPANIES and accrued interest				414,812	1	10
LOAN FROM ASSOCIATED COMPANY and accrued interest				112,791	16	0
SUNDRY CREDITORS				43,133	4	1
UNCLAIMED DIVIDENDS				273	4	4
BANK OVERDRAFT against security				388,617	0	3
PROFIT AND LOSS ACCOUNT						
Balance as per last Balance Sheet	29,587	6	4			
Add Balance as per Account for Year to date	14,190	6	2			
The dividends credited during the year are in excess of the combined results of all the Subsidiary Companies referred to in the Directors' Report.						
				43,777	12	6
				£8,255,941	11	7

Note. There are liabilities for Acceptances of some of the Subsidiary Companies and in respect of the Debentures, Preference Shares, Bank Overdraft and certain Acceptances of H. C. & Co. Ltd. Holdings in Subsidiary and other Companies have been deposited as collateral security for such Bank Overdrafts and Acceptances and also for the secured Loan and Bank Overdraft.

The divdend on the Cumulative Preference Shares is in arrear from 1st May, 1925.

	£	s.	d.	£	s.	d.
INVESTMENTS—						
In Subsidiary Cotton Mill Companies (at Cost)	4,837,792	7	2			
In Associated Cotton Mill Company (at Cost)	3,122,640	0	0			
	7,960,432	7	2			
Other Investments (at Cost less amounts written off)	66,652	14	10			
				8,027,085	2	0
By LOANS TO SUBSIDIARY COMPANIES and accrued interest, less Reserve				228,793	18	10
By SUNDRY DEBTORS				62	10	9
				£8,255,941	11	7

Note. The Investments in Subsidiary Cotton Mill Companies are taken at cost, no provision having been made in respect of trading losses incurred by any of the Subsidiary Companies since the shares were acquired. Dividends received from some of these companies out of profits earned prior to acquisition of the shares have not been applied in reduction of the cost of the shares.

The extent of the diminution of net assets arising from these causes amounting to £1,987,017 is indicated by the annexed summary of Assets and Liabilities of Subsidiary Cotton Mill Companies.

The Investment in the Associated Cotton Mill Company is taken at cost. Since the date of acquisition, £3,022,500 has been written off the capital of that Company under a scheme of reduction of capital, trading losses have been incurred in excess of the total Ordinary Share Capital.

AUDITORS' REPORT TO THE MEMBERS

WE report to the Members of the A. C. M. Trust, Ltd., that we have examined the above Balance Sheet with the books of the Company, and have obtained all the information and explanations we have required.

No provision has been made for the large depreciation which has arisen in the value of the Investments, of which depreciation the diminution of the net assets indicated in the note on the Balance Sheet forms a part. Subject to this observation, to further provision against losses on loans and to the amount of the liabilities of guarantees being stated, we are of opinion that such Balance Sheet is properly drawn up so as to exhibit a true and correct view of the Company's affairs at the 31st October, 1934, according to the best of our information and the explanations given to us and as shown by the books of the Company.

SUMMARY OF ASSETS AND LIABILITIES OF SUBSIDIARY COTTON MILL COMPANIES

(Valued in Balance Sheet at £4,837,792 7s. 2d.)

	£	£
Land, Buildings, Plant, Machinery, Goodwill, including excess of Purchase Price over book value of Assets acquired as at date of acquisition by the Company	3,869,422	
Add Additions (less Realizations) since acquisition	707,489	
	4,576,911	
Deduct Depreciation written off since acquisition	951,076	
		3,625,835
Stocks		928,309
Debtors and Loans		481,404
Investments		6,864
Cash at Bank and in Hand		89,554
		5,131,966
Deduct Debentures and Preference Shares held outside Group—		
In Subsidiary Companies	336,866	
Loans, Creditors, and Bank Overdrafts	1,834,391	
		2,171,257
		£2,960,709

Excluding Loans to and by the A. C. M. Trust, Ltd., and all Inter-Company Loans.

Subject to any participation in assets to which the 276,200 Preference Shares in E. C. Trust, Ltd., held by outside shareholders, would be entitled. The dividends on these shares are in arrear from 1st January, 1921.

Subject to certain interest which may be claimed at some future date.

In this case we can prepare two statements for purposes of comparison, the first showing the position as indicated by the formal Balance Sheet and the second the real condition as obtained from the auditors' report, the notes on the Balance Sheet, and from the summary of assets held by the subsidiary companies. In both cases the contingent liability has to be ignored as the actual amount involved is not shown.

STATEMENT NO. I. POSITION ON BASIS OF BALANCE SHEET FIGURES

	£ s. d.	£ s. d.	£ s. d.
FIXED ASSETS			
Investments in Subsidiary Cotton Mill Companies (at Cost) . .		4,837,792 7 2	
Investment in Associated Cotton Mill Company (at Cost) . .		3,122,640 0 0	
		7,960,432 7 2	
Deduct—			
Secured Loan and accrued interest	2,536 12 7		
Bank Overdraft against security .	388,617 0 3		
		391,153 12 10	
NET FIXED ASSETS . .			7,569,278 14 4
FLOATING ASSETS			
Other Investments		66,652 14 10	
Loans to Subsidiaries and accrued interest		228,793 18 10	
Sundry Debtors		62 10 9	
		295,509 4 5	
Deduct—			
Loans from Subsidiaries and accrued interest	414,812 1 10		
Loan from Associated Company and accrued interest . .	112,791 16 0		
Sundry Creditors . . .	43,133 4 1		
Unclaimed Dividends . .	273 4 4		
		571,010 6 3	
DEFICIENCY OF FLOATING ASSETS			275,501 1 10
NET ASSETS AVAILABLE FOR SHAREHOLDERS .			7,293,777 12 6
Deduct—			
Preference Share Capital		800,000 0 0	
Arrears of Dividend since 1st May, 1925—nine and a half years		570,000 0 0	
			1,370,000 0 0
SURPLUS			5,923,777 12 6
Deduct—			
"B" Preference Share Capital		1,800,000 0 0	
Arrears of Dividend—nine and a half years .		1,282,500 0 0	
			3,082,500 0 0
SURPLUS AVAILABLE FOR ORDINARY SHAREHOLDERS . . .			2,841,277 12 6
As the Ordinary Share Capital amounts to £4,650,000 there is a deficiency of			£1,808,722 7 6

Let us now consider the real position.

The investments in subsidiary companies and the advances made to them are only worth the net assets of those companies, and, assuming the values given are those which would be realized, the statement on page 291 can be prepared.

This shows a deficiency of no less than £1,972,427 11s. 8d. on the claims of the "B" shareholders, and this sum plus

STATEMENT NO. 2

	£ s. d.	£ s. d.	£ s. d.
The Net Assets of the Subsidiaries amount to[1]		2,960,709 0 0	
The Investments in the Associated Cotton Mill are worth nothing as the losses of that company exceed the Ordinary Share Capital (*vide* Auditors' Note)		– – –	
AMOUNT AVAILABLE FOR SECURED CREDITORS . . .		2,960,709 0 0	
Deduct Secured Creditors as per Statement No. 1 . . .		391,153 12 10	
NET FIXED ASSETS . .			2,569,555 7 2
FLOATING ASSETS			
Other Investments . . .		66,652 14 10	
Loans to Subsidiaries (as all the net assets of these are brought in above nothing more will be available)		– – –	
Sundry Debtors		62 10 9	
		66,715 5 7	
Deduct—			
Loan from Associated Company	112,791 16 0		
Sundry Creditors . . .	43,133 4 1		
Unclaimed Dividends . .	273 4 4		
		156,198 4 5	
DEFICIENCY OF FLOATING ASSETS			89,482 18 10
NET ASSETS			2,480,072 8 4
Deduct Amounts due to First Preference Shareholders			1,370,000 0 0
AMOUNT AVAILABLE FOR THE "B" PREFERENCE SHAREHOLDERS .			£1,110,072 8 4

[1] The figure given ignores certain claims as stated in the footnotes to the summary reproduced on page 289.

the amount of the Ordinary share capital (£4,650,000) gives the total loss, i.e. £6,622,427 11s. 8d. It will be observed that the loans from subsidiary companies have been ignored in the above statement. The amount of these would be added to the assets of the subsidiaries and show an additional surplus and then be deducted as a liability of the trust, and hence the amounts cancel one another. The company is to be commended for the information given to the shareholders, as from it they can, if they be so minded, find out to what extent their money invested in the business has been lost.

C. U. S. COM

BALANCE SHEET

As at 30th June, 1935 £ s. d.	CAPITAL AND LIABILITIES	£ s. d.	£ s. d.	£ s. d.
	1. SHARE CAPITAL			
	Authorized—			
	1,250,000 5% Preferred Ordinary Shares of 1s. each . . .	62,500 0 0		
	1,250,000 Ordinary Shares of 1s. each	62,500 0 0	125,000 0 0	
	Issued—			
	1,000,000 5% Preferred Ordinary Shares of 1s. each . . .		50,000 0 0	
110,046 8 0	1,100,464 Ordinary Shares of 1s. each		55,023 4 0	105,023 4 0
	2. LEASEHOLD EXTENSION RESERVE *per contra*			
	As per last Balance Sheet . .		2,400 0 0	
2,400 0 0	*Add* Appropriation for year . .		400 0 0	2,800 0 0
	3. CURRENT LIABILITIES AND PROVISIONS			
+3,412 1 10	(*a*) Secured Loan (repaid during year)		— — —	
4,626 0 4	(*b*) Sundry Creditors . . .		2,953 4 7	
174 7 6	(*c*) Income Tax Reserve . .		684 9 4	
1 12 0	(*d*) Sundry Shareholders for Dividends unclaimed . . .		1 12 0	3,639 5 11
	4. SURPLUS AND RESERVE			
	(*a*) Profit and Loss Account—			
11,623 1 1	Balance as per last Balance Sheet .	11,623 1 1		
	Less Amount appropriated under scheme of Reduction and Reconstruction of Capital . . .	4,942 17 3		
		6,680 3 10		
	Less Additional Expenses of Restruction	52 11 10		
		6,627 12 0		
	Add Net Profit for year ended 30th June, 1936	5,365 18 7		
		11,993 10 7		
	Less Preferred Ordinary Dividend to 31st March, 1936, already paid, and Dividend of 2½% actual recommended on Ordinary Shares and Preferred Ordinary Shares in respect of year ended 30th June, 1936 (paid or payable *less* tax) .	3,803 13 3	8,189 17 4	
	(*b*) Dividend Recommended (gross) .		2,625 11 7	10,815 8 11
£172,283 10 9				£122,277 18 10

PANY LTD.

30TH JUNE, 1936

ASSETS	£ s. d.	£ s. d.	£ s. d.	As at 30th June, 1935 £ s. d.
1. FIXED ASSETS				
(a) Freehold Property, Plant, Pans, etc., at cost *less* Depreciation as per last Balance Sheet . . .	13,629 1 6			
Deduct Sales, *less* additions at cost during year	1 9 1			
	13,627 12 5			
Deduct Depreciation for year .	162 10 0			
		13,465 2 5		13,629 1 6
(b) Leasehold Property, Plant, Pans, etc. at cost *less* Depreciation as per last Balance Sheet . . .	68,250 0 0			
Add Extensions, *less* Sales, at cost to 30th June, 1936 . . .	4,050 11 2			
	72,300 11 2			
Deduct Depreciation for year .	1,050 11 2			
		71,250 0 0		68,250 0 0
(c) Goodwill in accordance with Agreements at cost, as per last Balance Sheet	79,966 1 3			
Deduct Amount written off in accordance with Scheme of Reduction and Reconstruction of Capital sanctioned by the Court on 15th July, 1935 . . .	59,966 1 3			
		20,000 0 0		79,966 1 3
d) Locomotive at cost *less* Depreciation as per last Balance Sheet .	187 7 0			
Less Depreciation for year . .	18 15 0			
		168 12 0		187 7 0
(e) Office Furniture, Works Office, at cost, *less* amounts written off as per last Balance Sheet . . .		1 0 0		1 0 0
			104,884 14 5	
2. LEASEHOLD EXTENSION POLICY At cost, *per contra* (surrender value on 30th June, 1936, £2804 4s.) . .			2,800 0 0	2,400 0 0
3. CURRENT ASSETS				
(a) Stocks and Stores as valued by the Managers, P. M. & Co. Ltd. .		4,266 6 8		3,369 10 3
(b) Sundry Debtors and Apportionments		2,222 7 1		654 12 5
(c) Cash at Barclays Bank Ltd.—				
On Current Account . . .	8,076 16 6			
On Dividend Account . . .	1 12 0			
		8,078 8 6		
(d) In Hand at Works . . .		26 2 2		
			14,593 4 5	3,825 18 4
			£122,277 18 10	£172,283 10 9

5. RESULTS OF A RECONSTRUCTION

Our next Balance Sheet is that of a company which was reconstructed during the year in respect of which the accounts have been issued. This fact is clearly ascertainable in the statement itself since on the left-hand side are given the corresponding figures for the various items at the close of the previous accounting period. If these figures had not been shown there, the reader would not obtain this information and only a comparison with the actual Balance Sheet of the year before or an inspection of the company's file at the office of the Registrar of Joint-stock Companies would enable the whole story to be ascertained.

Let us examine the change in the position of the shareholders which has taken place within the year between 30th June, 1935, and 30th June, 1936 (see table on page 295).

The effects of the Reconstruction are clearly seen in the statements before us. The original Ordinary capital was reduced by half, and the amount thus released, together with £4942 17s. 3d. from the Profit and Loss Balance, was used to write down Goodwill from its original figure of £79,966 1s. 3d. to £20,000, a figure which is more in accordance with the capitalized value of the profits being earned. At the same time Preferred Ordinary shares were created and the sum raised from their issue became available to repay the secured loan and remove the annual charge for interest. While it is true that the fixed dividend on these Preferred shares will require rather more than the amount previously paid for interest, yet this dividend is an *allocation from profits* and not a charge against them.

So long as a loan exists which is not repayable on a fixed date, as was the case here, it would have been unwise to have paid dividends, as all available surplus cash should be used to reduce such loan. The conversion of this loan into new capital enables dividends to be resumed and also increases the working capital, while the value of the fixed assets is

As at 30th June, 1935				As at 30th June, 1936		
£ s. d.	£ s. d.	£ s. d.		£ s. d.	£ s. d.	£ s. d.
			Fixed Assets			
	13,629 1 6		Freehold Property, Plant, etc.		13,465 2 5	
	68,250 0 0		Leasehold Property, Plant, etc.		71,250 0 0	
	79,966 1 3		Goodwill		20,000 0 0	
	187 7 0		Locomotive		168 12 0	
	1 0 0		Office Furniture		1 0 0	
	162,033 9 9				104,884 14 5	
	43,412 1 10		*Deduct* Secured Loan		— — —	
		118,621 7 11				104,884 14 5
		2,400 0 0	Leasehold Extension Policy			2,800 0 0
			Floating Assets			
	3,369 10 3		Stocks and Stores		4,266 6 8	
	654 12 5		Debtors		2,222 7 1	
	3,825 18 4		Cash at Bank and in Hand		8,104 10 8	
	7,850 1 0				14,593 4 5	
			Deduct—			
4,626 0 4			Creditors	2,953 4 7		
174 7 6			Income Tax Reserve	684 9 4		
1 12 0	4,801 19 10		Unclaimed Dividends	1 12 0	3,639 5 11	
		3,048 1 2	Net Floating Assets			10,953 18 6
		124,069 9 1	Available for Shareholders			118,638 12 11
			Deduct Preferred Ordinary Share Capital			50,000 0 0
						68,638 12 11
		110,046 8 0	*Deduct* Ordinary Share Capital			55,023 4 0
		£14,023 1 1	Surplus			£13,615 8 11

more representative of the actual position. Although the Ordinary shareholders have lost half their original nominal capital, yet there still exists a surplus, and this is very little less than that available for them in the previous year. From the surplus disclosed the proposed dividend must be deducted, and this alters the position somewhat, but, on the other hand, the fact that dividends are now being paid will cause the shares to be quoted at a higher price on the stock markets.

CHAPTER XII

ACCOUNTS OF HOLDING AND SUBSIDIARY COMPANIES

Various aspects of the relationship of holding and subsidiary companies and their legal position have already received attention, but full consideration must now be given to the financial aspects which arise.

1. CLASSES OF HOLDING COMPANIES

There are two distinct and separate classes of holding companies met with at the present time, viz.—

(1) Those which carry on trading on their own account, and, in addition, control the activities of other concerns, either in the same line of business, or in an allied trade; and

(2) Those which are formed solely for the purpose of acquiring control of and managing other companies.

An example of the first class is the Midland Bank, whose Balance Sheet has already been reproduced on pp. 223, 224. An inspection of this statement discloses assets arising from its business as bankers, as well as the holdings of shares in subsidiary companies. In such cases the profits arise from (*a*) normal trading activities, and (*b*) the amounts received in dividends from the companies it controls.

In the second class the assets of the parent company will consist of its investments in the other companies, apart from any cash in hand, and assets of minor importance such as office furniture. This is illustrated in the following Balance Sheet of the Associated Biscuit Manufacturers, Ltd.

In this case the profits of the parent company consist solely of the dividends arising from their investments, so that when the subsidiaries are suffering from depression in

THE ASSOCIATED BISCUIT

BALANCE SHEET, 31ST

1935			£ s. d.	£ s. d.
	SHARE CAPITAL			
£	Authorized—			
600,000	600,000 6½% Cumulative Preference Shares of £1 each		600,000 0 0	
1,400,140	1,400,140 Ordinary Shares of £1 each		1,400,140 0 0	
499,860	499,860 Unissued Shares of £1 each		499,860 0 0	
£2,500,000			£2,500,000 0 0	
	Issued—			
600,000	600,000 6½% Cumulative Preference Shares of £1 each, fully paid		600,000 0 0	
1,400,140	1,400,140 Ordinary Shares of £1 each, fully paid		1,400,140 0 0	
2,000,140				2,000,140 0 0
15,112	Dividend on 6½% Preference Shares for the Half-year ended 31st March, 1936 (*less* Tax)			15,112 10 0
13,000	Loans from Subsidiary Companies			13,000 0 0
2,984	Trade and other Creditors and Provision for Accruing Expenses			3,470 10 5
43,129	Profit and Loss Account Balance at 31st March, 1935		57,941 10 1	
42,004	*Deduct* Final Ordinary Share Dividend at 4% Free of Tax		56,005 12 0	
1,125			1,935 18 1	
115,045	*Add* Profit for the year ended 31st March, 1936		115,065 16 2	
116,170			117,001 14 3	
30,225	*Deduct* 6½% Cumulative Preference Share Dividend *less* Tax to 31st March, 1936	£30,225 0 0		
28,003	Interim Ordinary Share Dividend at 2% Free of Tax	28,002 16 0		
			58,227 16 0	
58,228				58,773 18 3
				£2,090,496 18 8

The Company has guaranteed the due payment from time to time of the fixed divdends, on the Preference Shares of Huntley & Palmers, Ltd., and Peek, Frean & Co., Ltd. which have been duly paid up to date by the two Companies.

(Signed)
C. E. P.
P. C. } Directors.
B. P., Secretary.

their trading, the holding company suffers from the reduction of its income resulting from smaller dividends. In those cases where there is a horizontal form of combine, i.e. where all the subsidiaries are in the same line of business as is the case with Associated Biscuit Manufacturers, Ltd., any factors which adversely affect the industry will have a repercussion on the income and the profits not only of the subsidiaries, but also on those of the parent company.

MANUFACTURERS, LTD.

MARCH, 1936

1935		£ s. d.	£ s. d.
	INVESTMENT AND INDEBTEDNESS OF SUBSIDIARY COMPANIES		
2,000,000	Investments in Shares at Cost	2,000,000 0 0	
62,629	Balance of Declared Dividends and Current Accounts	65,361 10 11	
2,062,629			2,065,361 10 11
1,291	Stocks and Equipment	1,848 15 0	
251	Payments in Advance and Sundry Debtors	369 17 8	
25,007	Cash at Bank and in Hand	22,916 15 1	
26,549			25,135 7 9
			£2,090,496 18 8

It may, of course, happen that some of the minor companies are not showing such good profits owing to the parent company developing its own trading at the expense of theirs, but in such a case the total profits of the combine are not really affected, as what one unit loses another gains. If, however, the organization is of a vertical nature, such as occurs where a company controls others producing different classes of goods, most, if not all, of which can be used by the parent company, e.g. a motor-car producing company controls others who manufacture, say, engines, radiators, car bodies, etc., and the controlled companies are not engaged solely in supplying the needs of the major company, it is not so likely that all the various undertakings will be adversely affected at the same time, and the holding company is not then placed in quite so unfavourable a position as if its interests were confined solely to one industry.

The bald statement of the value of the "Investments in subsidiary companies" gives no idea whatever of the position or profit-earning capacity of the subsidiary organizations. It does not disclose which companies are earning profits, or which (if any) are incurring losses, or the amounts of such profits or losses. It will be recalled that our great joint-stock banks, all of which control other banking institutions, have adopted the principle of circulating the Balance Sheets of their subsidiaries along with their own. This procedure enables their shareholders to ascertain the actual profits made by each concern, and their financial condition and position at the close of the accounts.

2. CONSOLIDATED STATEMENTS OF ASSETS AND LIABILITIES

Many holding companies also present to their shareholders a consolidated statement of the assets and liabilities of the parent and subsidiary companies, designed to show the position which would exist if the whole of the companies

within the group constituted one business; in other words, the minor companies are treated as branches of the major business and not as separate entities. Such a consolidated statement is not a Balance Sheet in the legal sense of the term, but it does disclose *inter alia*—

1. How the money provided by the proprietors is invested; and
2. The total profits made by the group as a whole; and
3. The general position.

The following columnar table shows the items extracted from the Balance Sheets of the Midland Bank and its subsidiaries as at 31st December, 1936—

COLUMNAR STATEMENT OF THE ASSETS AND LIABILITIES OF THE MIDLAND BANK AND ITS SUBSIDIARIES AS AT 31ST DECEMBER, 1936

(Figures are correct to the nearest £)

LIABILITIES	Midland Bank	Belfast Banking Co.	Clydesdale Bank, Ltd.	North of Scotland Bank	Midland Bank Executor and Trustee Co
	£	£	£	£	£
Share Capital: Issued .	14,248,012	800,000	1,300,000	1,141,000	250,000
Reserve Fund . .	11,500,000	800,000	1,700,000	1,265,000	125,000
Dividend Payable, 1937	869,129	33,550	158,600		
Balance of Profit and Loss Account . .	547,084	114,989	104,923	182,018	53,586
	27,164,225	1,748,539	3,263,523	2,588,018	428,586
Notes in Circulation .		942,675	3,002,690	2,310,633	
Current, Deposit, and Other Accounts .	479,766,998	14,044,212	34,893,533	30,554,156	1,867,844
Balances due to Affiliated Companies .	7,180,990				
Acceptances and Confirmed Credits on behalf of Customers .	11,054,418		942,566		
Engagements on behalf of Customers . .	7,545,855				
Midland Bank—Loans on behalf of Clients .					265,608
Belfast Banking Co., including outstanding Cheques . . .					115
Clydesdale Bank—do. .					295
	£532,712,486	£16,735,426	£42,102,312	£35,452,807	£2,562,448

COLUMNAR STATEMENT OF ASSETS AND LIABILITIES—(*contd.*)

ASSETS	Midland Bank	Belfast Banking Co.	Clydesdale Bank, Ltd.	North of Scotland Bank	Midland Bank Executor and Trustee Co.
Cash, Bank Notes and Balances with Bank of England . .	52,941,374		3,328,622	2,274,704	
Balances with and Cheques in course of collection on other Banks in Great Britain and Ireland .	22,092,096	2,732,716	3,404,909	2,735,006	
Cash at Midland Bank .					294,523
Money at Call and Short Notice . . .	28,687,887		2,717,000	2,333,000	
War Loan and other British Government Securities . .	125,308,880	6,813,918	14,884,785	19,555,828	134,063
British Corporation and County Stocks . .	604,313	629,861			
Dominion, Colonial, and Foreign Government Stocks and Bonds .	87,025		2,694,226	431,921	
Sundry Investments .	1,891,820		583,812	183,279	
Bills Discounted . .	21,791,113	202,757	890,912	135,228	
British Treasury Bills .	52,622,885				
Advances to Customers and other Accounts .	189,265,053	6,085,684	12,018,100	7,628,396	
Midland Bank Executor and Trustee Co.—Loans on behalf of Customers . .	251,435				
Liabilities of Customers for Acceptances, Confirmed Credits, and Engagements . .	18,600,273		942,566		
Bank Premises at Head Office and Branches .	8,891,253	42,202	347,280	125,370	
Other Properties and Work-in-progress for extension of business	994,343		290,000	49,975	
Shares in Yorkshire Penny Bank . .	937,500				
Shares in Subsidiaries—					
Belfast Banking Co. .	1,714,989				
Clydesdale Bank .	3,104,923				
North of Scotland Bank . . .	2,496,738				
Midland Bank Executor and Trustee Co.	428,586				
Cash at Bank within the Group on behalf of Clients . . .					1,867,844
Debtors for cash advances on behalf of Clients . . .					266,018
Loan to Government of Northern Ireland .		228,288			
Shares in Bankers Industrial Development Co. . . .			100	100	
	£532,712,486	£16,735,426	£42,102,312	£35,452,807	£2,562,448

Consolidated Statement of the Assets and Liabilities of the Midland Bank Ltd., and its Affiliated Companies as at 31st December, 1936

	£ s. d.	£ s. d.
Share Capital Authorized		
2,869,079 Shares of £12 each . .		34,428,948 0 0
2,000,000 Shares of £2 10s. each .		5,000,000 0 0
5,771,052 Shares of £1 each . .		5,771,052 0 0
		£45,200,000 0 0
Share Capital Issued		
2,869,079 Shares of £12 each, £2 10s. paid	7,172,697 10 0	
1,921,677 Shares of £2 10s. each fully paid	4,804,192 10 0	
2,271,122 Shares of £1 each fully paid	2,271,122 0 0	
		14,248,012 0 0
Reserve Fund		11,500,000 0 0
Dividend payable on 1st February, 1937		869,128 14 7
Profit and Loss Account—Balance .		547,084 4 6
		27,164,224 19 1
Notes in Circulation		6,255,998 0 0
Current, Deposit, and Other Accounts .		557,255,276 11 5
Acceptances and Confirmed Credits on account of customers . . .		12,015,660 2 11
Engagements on accounts of customers		7,566.744 3 11
The Bank has contracts running for the sale of Foreign Currencies to the value of £8,555,168 18s. which are covered by purchases to a corresponding amount		
		£610,257,903 17 4

	£ s. d.	£ s. d.
Coin, Notes and Balances with the Bank of England . . .		59,380,112 11 7
Balances with, and Cheques in course of collection on other Banks in Great Britain and Ireland . . .		24,776,185 15 9
Money at Call and Short Notice .		33,966,174 11 3
Investments at or under Market Value		173,447,427 13 2
Bills Discounted	23,008,721 8 0	
British Treasury Bills . . .	52,622,885 0 0	
		75,631,606 8 0
		367,201,506 19 9
Advances to Customers and Other Accounts (*less* provision for Doubtful Debts and Contingencies) .		211,796,069 1 1
Liabilities of Customers for Acceptances, Confirmed Credits, and Engagements		19,582,404 6 10
Bank Premises at Head Office and Branches at Cost, *less* amounts written off		9,406,104 18 3
Other Properties, and Work-in-progress for the extension of the business, at Cost, *less* amounts written off		1,334,318 11 5
Yorkshire Penny Bank, Ltd.—		
93,750 Shares at £5 each, £3 paid .	281,250 0 0	
187,500 Shares of £1 each fully paid	187,500 0 0	
Proportion of Reserve relative thereto	468,750 0 0	
		937,500 0 0
		£610,257,903 17 4

On page 303 is given the consolidated statement of assets and liabilities of the group which is circulated to the shareholders of the Midland Bank at the same time as the Balance Sheet of their own company, accompanied by copies of those of the banks which are controlled.

3. PREPARATION OF CONSOLIDATED STATEMENTS

A comparison of the figures in the Consolidated Statement given above with the tabular statement of the details from which it is constructed shows that the capitals of the subsidiaries, and the items of the shareholdings in them held by the Midland Bank, have disappeared, and the financial holdings of the last-named bank appear in the form of the net assets representing such interest. Many of the items cannot be reconciled by comparing the amounts shown against them in the second statement with the totals of the columns in the detailed statement previously given. This is due to the fact that any sums owing by one company within the group to another, and shown as a liability of the one and an asset of the other company, have been eliminated, as also have all inter-company transactions. As we have no knowledge of all the details of such dealings we cannot ascertain from the published accounts the exact composition of many of the figures appearing in the Statement.

(*a*) When the Holding Company Possesses all the Shares of its Subsidiaries

In order to make the procedure clear, the following is an example of how such combined statements are prepared, the actual calculations necessary being given in the form of notes in order to simplify the ascertainment of the profit of the combine, and the preparation of the final consolidated Statement.

Example. The following are the Trial Balances of Company A and its subsidiaries at 31st December, 1937—

Debits	A Co.	B Co.	C Co.
	£	£	£
Cash	7,500	5,000	6,000
Debtors	35,000	19,000	42,000
Bills Receivable	20,000	6,000	4,000
Stock of Raw Material, 1st Jan.	15,000	10,500	16,000
Purchases of Raw Material	65,000	40,000	51,000
Wages	45,000	32,000	37,000
Manufacturing Expenses	19,000	19,000	20,500
Selling Expenses	8,500	4,000	7,500
Administration Expenses	4,500	2,500	3,500
Work-in-progress, 1st Jan.	8,000	7,000	7,500
Stock of Finished Goods, 1st Jan.	9,000	6,500	8,000
Plant and Equipment	90,000	40,000	75,000
50,000 Shares in B. Co. at cost	87,500		
80,000 Shares in C. Co. at cost	120,000		
	£534,000	£191,500	£278,000

Credits	A Co.	B Co.	C Co.
	£	£	£
Capital (in shares of £1 each)	300,000	50,000	80,000
Bills Payable	11,000	8,000	6,000
Creditors	10,000	6,500	25,000
Debentures	50,000		
Premium on Debenture Issue	500		
Depreciation Reserve	10,000	6,000	11,250
Sales	140,000	105,000	125,000
Reserve	4,000	10,000	25,000
Profit and Loss Balance	8,500	6,000	5,750
	£534,000	£191,500	£278,000

Stocks at 31st December, 1937, were—

	£	£	£
Raw Material	28,000	17,500	21,000
Work-in-progress	9,500	8,000	8,500
Finished Goods	13,500	14,500	10,500

A Co. purchased the whole of the shares of the B and C companies on 1st January, 1937, at prices shown in the Trial Balance.

During the year each of the three companies declared and paid a dividend of 5 per cent in respect of the year 1936. The A Co. credited the dividends to its Profit and Loss Account. No other entries were made in this account during the year.

During the year, 1937, the C. Co. sold raw material to B Co. at a price of £20,000. These goods cost C Co. £16,000.

At 31st December, 1937, Co. B owes to the C Co. £3000, the debt being included in the debtors of the C Co.

Similarly, during the year the B Co. sold to the A Co. raw material invoiced at £37,500 and which cost B Co. £30,000. The A Co. made cash advances totalling £40,000 to Co. B during the year. The sales just mentioned were charged against these advances and the £2500 still due on the 31st December is included in the B Co.'s Debtors.

The stocks at 31st December held by the companies include the following amounts of profits charged by the company which sold them—

Co. A—Raw Material £2000, Work in Progress £500, Finished Goods £400.

Co. B—Raw Material £3000, Work in Progress £600, Finished Goods £500.

The Debentures were issued by the A Co. on 1st July, 1937. They bear 5 per cent interest, payable half-yearly, and mature in ten years. No interest has yet been paid.

Depreciation is to be allowed at 5 per cent per annum on the cost of the fixed assets.

Prepare the following Consolidated Statements—

1. Cost of goods manufactured and sold.
2. Profit and Loss.
3. Appropriation Account, showing as the final balances

therein the balance of profit appearing in the Consolidated Statement.

4. Balance Sheet.

It will be seen that the parent company (the A Co.) holds the whole of the shares of the other two companies.

To prepare the statements asked for, the following adjustments will have to be made—

1. The prices paid by the A Co. for the shares of each of the other companies is in excess of the nominal value of the shares, and it is necessary to ascertain their true worth in order to see whether any premium has been given when acquiring such shares. Any premium is really a payment for Goodwill and must be so treated.

2. In the case of the 50,000 shares in the B Co.—

			£
The purchase price was			87,500
The value of these shares at the 1st January was—			
Capital issued		£50,000	
Reserve		10,000	
Profit; Balance as per Account	£6,000		
To this must be added the amount of the dividend paid during the year, which amount would have been charged against profits	2,500		
		8,500	
True Worth of Shares as at 1st January, 1937 .			68,500
Amount of Goodwill paid by A Co. . . .			£19,000

3. The A Co. paid for the 80,000 shares in the C. Co.

			£
The sum of			120,000
These shares were worth on 1st January—			
Capital issued		£80,000	
Reserve		25,000	
Profit shown	£5,750		
Add Dividend paid . .	4,000		
		9,750	
			114,750
Amount paid for Goodwill			£5,250

4. The dividends received by the A Co. from the subsidiaries were paid out of profits which were made before the shares were acquired by it, and must not be included in the profits of that company. A Co. pays for these profits in the purchase price, and the amount received is really a recovery of the sum paid for the cum. div. rights. These sums amounting to £6500 will therefore be eliminated from the profit of the A Co.

5. The B Co. owes to the C Co. £3000 included in its Sundry Creditors, while the C Co. includes a similar sum in its Creditors. Each of these items must be eliminated in the Consolidated Balance Sheet.

6. Similarly B Co. owes the A Co. £2500, and similar adjustments must be made to those outlined in No. 5 above.

7. Inter-company transactions are as follows—

C Co. sold raw materials to B Co. for	£20,000	
B Co. sold similar goods to A Co. for	£37,500	
		Total £57,500

For arriving at the consolidated position these purchases and sales must be omitted.

8. The Stocks in hand at 31st December, 1937, include certain goods acquired from other companies within the group, and these stocks must be reduced by any profit made on them by the selling company, thus bringing them to the actual cost to the group as a whole, hence Raw Material Stocks must be reduced by £5000, Work in Progress by £1100, and Finished Goods by £900.

The Stocks will now stand at—

Raw Material—		
A Co. £28,000 — £2,000 . .	£26,000	
B Co. £17,500 — £3,000 . .	14,500	
C Co.	21,000	
		Total £61,500
Work-in-progress—		
A Co. £9,500 — £500 . . .	9,000	
B Co. £8,000 — £600 . . .	7,400	
C Co.	8,500	
		Total £24,900

Finished Goods—		
A Co. £13,500 − £400	13,100	
B Co. £14,500 − £500	14,000	
C Co.	10,500	
		Total £37,600

9. A Co.'s balance of Profit and Loss as shown in the Trial Balance was made up as follows—

(*a*) Profits available at the end of the preceding year, plus

(*b*) Dividends received from the B and C companies; less

(*c*) The dividend of 5 per cent paid by it during the year.

Thus on the 1st January, 1937, its balance on this account was—

£8500 + £15,000 − £6500 = £17,000.

10. Allowance must be made for half a year's interest on the Debentures, i.e. £1250.

11. Profits must be reduced by £7000 made up as follows—

	£
Consolidated Sales fall by	57,500
Consolidated Costs fall by	51,400
Difference thereon	6,100
Reduction in value of Stock of Finished Goods	900
TOTAL	£7,000

The following columnar statement shows the Manufacturing, Trading, and Profit and Loss Accounts of each company with a column for adjustments and eliminations, so that the construction of the Consolidated Statement becomes a simple matter.

MANUFACTURING, TRADING, AND PROFIT AND LOSS ACCOUNTS; AND CONSOLIDATED STATEMENT THEREOF FOR YEAR ENDED 31ST DECEMBER, 1937

	A Co.		B Co.		C Co.		Eliminations	Consolidated Statement	
	£	£		£	£	£	£	£	£
To Work in Progress, 1st January		8,000		7,000		7,500			22,500
„ Cost of Raw Material used—									
Stock, 1st January . .	15,000		10,500		16,000			41,500	
Purchases for Year . .	65,000		40,000		51,000		— 57,500(7)	98,500	
	80,000		50,500		67,000			140,000	
Less Stock, 31st December .	28,000		17,500		21,000		— 5,000(8)	61,500	
		52,000		33,000		46,000			78,500
Wages		45,000		32,000		37,000			114,000
		105,000		72,000		90,500			215,000
Less Work in Progress, 31st December . . .		9,500		8,000		8,500	— 1,100(8)		24,900
		95,500		64,000		82,000			190,100
„ Manufacturing Expenses .		19,000		19,000		20,500			58,500
„ Depreciation of Plant . .		4,500		2,000		3,750			10,250
COST OF GOODS PRODUCED .		119,000		85,000		106,250			258,850
By Sales		140,000		105,000		125,000	— 57,500(7)		312,500
To Stock of Finished Goods, 1st January	9,000		6,500		8,000			23,500	
Cost of Goods Produced . .	119,000		85,000		106,250			258,850	
	128,000		91,500		114,250			282,350	
Less Stock of Finished Goods, 31st December .	13,500		14,500		10,500		— 900(8)	37,600	
COST OF GOODS SOLD .		114,500		77,000		103,750			244,750
Gross Profit . . .		25,500		28,000		21,250			67,750
To Selling Expenses . . .	8,500		4,000		7,500			20,000	
„ Administration Expenses .	4,500		2,500		3,500			10,500	
„ Debenture Interest(10) . .	1,250							1,250	
TOTAL EXPENSES . .		14,250		6,500		11,000			31,750
Net Profit . . .		£11,250		£21,500		£10,250			£36,000

The small figures in parenthesis are references to the notes on adjustments given above.

The following is the Appropriation Account which can be prepared for each company and for the consolidation—

	Company A	Company B	Company C	Eliminations	Consolidated Statement
	£	£	£	£	£
Balance of Profit, 1st Jan. .	17,000(9)	8,500	9,750	− 8500(2)	17,000
Profit for Year as per account	11,250	21,500	10,250	− 9750(3)	36,000
Dividend received from—					
B Co.	2,500				
C Co.	4,000				
	34,750	30,000	20,000	− 2500(4)	53,000
Less Dividend paid .	15,000	2,500	4,000	−4000(4)	15,000
BALANCE . .	£19,750	£27,500	£16,000		£38,000

It can now be ascertained what effect amalgamation has on the total results. By eliminating the profits made by sales from one company to another and regarding each one as a department of one large business organization, we reduce the cost of production from £310,250 (A Co. £119,000; B Co. £85,000; and C Co. £106,250) to a figure of £258,850. The inclusion of inter-company dealings at prices showing a profit to the selling company increases both Gross and Net Profits, and the elimination of these reduces the former from £74,750 to £67,750, and the latter falls from £43,000 to £36,000.

To enable the subsidiary companies to present their own Balance Sheets the actual profit made by each must be shown. As will be seen later this procedure is even more necessary when there are "outside" or minority shareholders, i.e. where the holding company only possesses a major portion of the shares, as such minority shareholders are, of course, entitled to their proportion of the actual profits made by the company in which they are financially interested, and such profits will include any which have been made out of sales to other members of the group.

The Balance Sheets and Consolidated Statement of the assets and liabilities can now be prepared on the following lines—

BALANCE SHEETS OF THE A, B, AND C COMPANIES, AND CONSOLIDATED STATEMENT OF ASSETS AND LIABILITIES AS AT 31ST DECEMBER, 1937

	Company A	Company B	Company C	TOTAL	Adjustments	Consolidated Statement
ASSETS	£	£	£	£	£	£
Goodwill					+ 19,000(2) + 5,250(3)	24,250
Plant and Equipment . . .	90,000	40,000	75,000	205,000		205,000
Stocks—						
Raw Material	28,000	17,500	21,000	66,500	— 5,000(3)	61,500
Work in Progress	9,500	8,000	8,500	26,000	— 1,100(8)	24,900
Finished Goods	13,500	14,500	10,500	38,500	— 900(8)	37,600
Debtors	35,000	19,000	42,000	96,000	— 2,500(6) — 3,000(5)	90,500
Bills Receivable	20,000	6,000	4,000	30,000		30,000
Bank Balance and Cash in Hand . .	7,500	5,000	6,000	18,500		18,500
50,000 Shares in B Co. at Cost . .	87,500			87,500	— 87,500(2)	
80,000 Shares in the C Co. at Cost .	120,000			120,000	—120,000(3)	
	£411,000	£110,000	£167,000	£688,000		£492,250

Liabilities						
Issued Share Capital	300,000	50,000	80,000	430,000	− 50,000(2) − 80,000(3)	300,000
Reserve	4,000	10,000	25,000	39,000	− 10,000(2) − 25,000(3)	4,000
Depreciation Reserve	14,500	8,000	15,000	37,500		37,500
Premium on Issue of Debentures	500			500		500
Profit and Loss Account—Balance	19,750	27,500	16,000	63,250	− 7,000(11) − 8,500(2) − 9,750(3)	38,000
	338,750	95,500	136,000	570,250		380,000
Debentures	50,000			50,000		50,000
Interest accrued thereon	1,250			1,250		1,250
Bills Payable	11,000	8,000	6,000	25,000		25,000
Creditors	10,000	6,500	25,000	41,500	− 2,500 − 3,000 (9c)	36,000
	£411,000	£110,000	£167,000	£688,000		£492,250

It now becomes apparent that the capital subscribed by the shareholders of the A Co. has been sunk in the fixed and floating assets of the group, and that an item of Goodwill exists arising from the difference in the amount paid for the shares in the other businesses exceeding the value of the assets at the time when they were bought. The position disclosed in the Consolidated Statement is that which would exist if the A Co. had bought the actual businesses of the other two companies instead of the whole of the shares.

(*b*) Where Shares are Acquired during the Year

The case just dealt with is the simplest possible form which can arise, as the whole of the shares were acquired at the commencement of a trading period, and the necessary adjustments were therefore easily ascertained. Let us now consider a slightly different case, and assume that all the items in the Trial Balance shown on page 305 are still the same, but that the A Co. has bought only 80 per cent of the shares of the C Co. on the 1st January, 1937, for £120,000 and subsequently acquired 90 per cent of the shares of Co. B for £87,500 on the 1st July. The dividends distributed by the B and C companies were in respect of the profits made in 1936, and were actually paid in March, 1937.

Notes of Adjustments to be Made

1. The A Co. acquired an 80 per cent interest in the C Co. on 1st January

		£
For a payment of		120,000
The value of the shares at that date was—		
80% of Share Capital of £80,000 . .	£64,000	
,, Reserve of £25,000 . . .	20,000	
,, Profit, 1st January, of £9750 .	7,800	
		91,800
The amount paid for Goodwill therefore amounts to		£28,200

2. The shares in the B Co. were bought on 1st July, and therefore strictly speaking we ought to ascertain the profit made to the 30th June, but as this may be inconvenient the only course to adopt is to assume that the profits were made evenly over the whole of the year. These profits for twelve months amount to £21,500 as shown on page 310, and thus for half a year would be £10,750. The minority shareholders are, however, entitled to their share of the full profit made, and this sum of £10,750 must be reduced by the sum due to them, viz. 10 per cent of £10,750, or £1075, so that the A Co. acquires profits amounting to £9675.

In this case the balance of profit shown in the Trial Balance, i.e. £6000, is the actual profit remaining undistributed after the dividend paid in March has been charged against the balance at the 1st January.

		£
The A Co. paid for 90% of the Shares of the B Co. .		87,500
The value of these shares at 1st July is—		
90% of the Capital of £50,000 . .	£45,000	
,, of the Reserve of £10,000 .	9,000	
,, of the Profit, 1st Jan., of £6000 .	5,400	
,, of the Profit for half-year as above	9,675	
		69,075
And hence the amount paid for Goodwill =		£18,425

3. The previous notes numbered 5, 6, 8, and 10 will also apply in this case, while Note No. 7 will be applicable if we assume that the sales to members of the combine took place after the shares were purchased.

4. Only 80 per cent of the dividend paid by the C Co. will be receivable by the A Co., and as this sum is included in the profits of C Co., taken into account in (1) above, it does not appear in the profit of the consolidated group.

5. The balance of profits of the A Co. on the 1st January will be found as follows—

		£
Balance of Profits as per Trial Balance	. .	8,500
Less Dividend received from C Co. (A Co. only holds 80% of the shares on which the dividend amounts to)	. . . . . .	3,200
		5,300
Add Dividend paid subsequently	. . .	15,000
		£20,300

6. The Appropriation Account of the holding company will show the following—

		£
Balance of Profits, 1st January, 1937		20,300
Add Profit for year as shown . .	£11,250	
Dividend from C Co. . .	3,200	
		14,450
		34,750
Less Dividend paid		15,000
		£19,750

The Appropriation Accounts of the other companies will not be changed.

7. As the A Co. does not hold all the shares of the subsidiaries, allowance must be made for the interests of the remainder or minority shareholders. This may be done in one of two ways, viz.—

(1) Including in the Consolidated Statement of assets and liabilities only a proportion of such items as would be applicable to the shares held by the A Co., or

(2) Bringing into the Statement an amount equal to the proportion of the net assets to which the minority shareholders are entitled.

The second method is the one usually adopted, and is really the simpler in working. Following this procedure we then find—

(*a*) The minority shareholders of the B Co. would be entitled to—

		£
10% of the	Issued Capital	5,000
,,	Reserve	1,000
,,	Profit at 31st December, 1936	600
,,	Profit for the Year	2,150
		£8,750

(*b*) The outside shareholders of the C Co. have likewise claims for—

		£
20% of the	Issued Capital	16,000
,,	Reserve	5,000
,,	Profits at the 31st December, 1936	1,150
,,	Profits for the Year	2,050
		£24,200

8. The minority shareholders of each of the two subsidiary companies are entitled to their proportion of the *full profits* made by the company in which they hold shares, as inter-company transactions do not affect their position at all, but the group profits for the year 1937 must be adjusted by eliminating all profits arising from such group dealings.

(*a*) The adjustments of the profits of the B Co. will be—

	£
Profit for Year	21,500
Deduct 10% for Minority Holdings	2,150
	19,350
Deduct one-half of such profits as being profit made between 1st January and 30th June, included in the purchase of the shares	9,675
	9,675
Add Profit made by C Co. on its sales to this company	4,000
	13,675

Deduct Profit made on goods sold to A Co.	£7,500	
Reductions in value of Stocks—		
Raw Material	3,000	
Work-in-progress	600	
Finished Goods	500	
		11,600
PROFIT for Half-year during which the shares have been held by A Co.		£2,075

(*b*) A similar adjustment must be made for C Co., and will be as follows—

	£
Profit of Company for Year	10,250
Deduct 20% for outside shareholders	2,050
	8,200
Deduct Profit on Goods sold to B Co	4,000
PROFIT for the purposes of consolidation	£4,200

(*c*) The profits of the A Co. must also be adjusted in respect of inter-company profits as follows—

		£
Profit for Year		11,250
Add Profit made by B Co. on sales to A Co.		7,500
		18,750
Deduct Reduction in Value of Stocks—		
Raw Material	£2000	
Work-in-progress	500	
Finished Goods	400	
		2,900
PROFIT for the Consolidated Statement		£15,850

9. The consolidated profits for the year thus amount to £22,125 (i.e. £2075 + £4200 + £15,850) and the balance available must be increased by the balance of profit brought in by the A Co. on 1st January, 1937. This amounts to £5300. (See Note 5.)

The change in the conditions from those in the previous example does not in any way affect the Balance Sheets of the individual companies, and they would therefore be the

same as shown on pages 312–3. The adjustments, however, are quite different, and the following statement shows the total column of the form previously shown, the eliminations and additions necessary, and the figures for the Consolidated Statement of assets and liabilities.

CONSOLIDATED POSITION OF THE A, B, AND C COMPANIES AS AT 31ST DECEMBER, 1937

	Total as shown on pages 312/3	Adjustments +	Adjustments −	Consolidated Statement
	£	£	£	£
Assets				
Goodwill		28,200(1) 18,425(2)		46,625
Plant and Equipment	205,000			205,000
Stocks—				
Raw Material	66,500		5,000(6)	61,500
Work in Progress	26,000		1,100(6)	24,900
Finished Goods	38,500		900(6)	37,600
Debtors	96,000		3,000(4) 2,500(5)	90,500
Bills Receivable	30,000			30,000
Cash at Bank and in Hand	18,500			18,500
45,000 Shares in B Co. at cost	87,500		87,500(2)	
64,000 Shares in C Co. at cost	120,000		120,000(1)	
	£688,000			£514,625
Liabilities				
Issued Share Capital	430,000		80,000(1) 50,000(2)	300,000
Reserve	39,000		25,000(1) 10,000(2)	4,000
Depreciation Reserve	37,500			37,500
Premium on Debentures	500			500
Profit and Loss Account Balance	63,250		7,800(1) 5,400(2) 9,675(3) 2,750(7a) 3,200(7b) 7,000(6)	27,425
	570,250			369,425
Due to Minority Shareholders		8,750(7a) 24,200(7b)		32,950
Debentures	50,000			50,000
Interest accrued thereon	1,250			1,250
Bills Payable	25,000			25,000
Creditors	41,500		3,000(4) 2,500(5)	36,000
	£688,000			£514,625

(c) Where "Cross-holdings" Exist

So far we have been concerned only with cases where one company acquires shares of others, and there are no cross-holdings, i.e. where neither of the companies whose shares are purchased holds any shares in either of the others. In modern business, however, the ramifications of financial interests are often very involved, and cross-holdings are not uncommon, and entail considerable and often intricate work in order to arrive at the real position of the group.

In our next example we must take cross-holdings into consideration, and for this purpose the following items are found in the Trial Balances of the three companies concerned—

	Parent Company A	Subsidiary Companies	
		B	C
Debits	£	£	£
Plant	190,000	110,000	50,000
Stock	68,750	170,000	100,000
Debtors	70,000	200,000	120,000
Cash at Bank	25,000	71,000	80,000
150,000 Shares in B Co. at Cost	206,250		
60,000 Shares in C Co. at Cost	115,000		
20,000 Shares in C Co. at Cost		20,000	
25,000 Shares in B Co. at Cost			25,000
Profit and Loss Account—Balance, 1st January		5,000	
	£675,000	£576,000	£375,000
Credits			
CAPITAL in fully paid £1 shares	300,000	200,000	100,000
Reserve, 1st January	100,000	85,000	40,000
Profit and Loss Account—Balance, 1st January	25,000		10,000
Profit made by Company during year	50,000	16,000	25,000
Creditors	200,000	275,000	200,000
	£675,000	£576,000	£375,000

The shares held by the B and C companies were acquired some years before, but the A Co. purchased its controlling holdings in the subsidiary companies on the 1st January. There have been no inter-company transactions, and no dividends have been paid during the year by either company.

Notes of the Adjustments to be Made

1. As both B and C companies hold shares in the others at the 1st January, the balances of Reserve and Profit and Loss Accounts shown above do not reveal the true position, and this must first be obtained before it is possible to ascertain the amount applicable for Goodwill in the payments made by A Co. for the shares. The true amounts of Profits and Reserve are found in the following manner. The calculations are made correct to the nearest £ in every case, and in order to assist readers who may have forgotten algebra, the full workings have been shown.

Let x = the true amount of the Reserve of the B Co. as at 1st January and
y = the true amount of the Reserve of the C Co. at the same date.

Since B Co. has a Reserve of £85,000 and holds a one-fifth interest in the C Co. and this latter company has a Reserve of £40,000 and an eighth holding in the B Co.

$$x = £85{,}000 + \tfrac{1}{5}y \qquad (1),$$
while
$$y = £40{,}000 + \tfrac{1}{8}x \qquad (2).$$

Eliminate the fractions by multiplying (1) by 5, and (2) by 8, therefore—

$$5x - y = £425{,}000 \qquad (3), \text{ and}$$
$$-x + 8y = £320{,}000 \qquad (4).$$

We must now eliminate either x or y, and we therefore multiply (3) by 8, and add the result to (4) thus getting—

$$\begin{array}{lrl} (4) & -x + 8y = & £320{,}000 \\ (3) \times 8 & 40x - 8y = & £3{,}400{,}000 \\ \hline & 39x \quad = & £3{,}720{,}000 \text{ and } x = \underline{\underline{£95{,}385}} = \text{B Co.'s true Reserve.} \end{array}$$

Substitute this value for x in (4) above—

$$8y = £320{,}000 - (-£95{,}385),$$
$$8y = £415{,}385, \qquad \text{and } y = \underline{\underline{£51{,}923}} = \text{C Co.'s true Reserve.}$$

[Proof. *The true Reserve of the B Co. includes its own Reserve and one-fifth of that of the C Co. By deducting one-fifth of C Co.'s true Reserve from that given for the B Co. above we should get the figure at which B's Reserve stands in its books, i.e.—*

$$£95{,}385 - \tfrac{1}{5} \text{ of } £51{,}923 = £95{,}385 - £10{,}385 = £85{,}000.]$$

3. A similar procedure must be adopted with regard to the balance of Profit and Loss Account as at 1st January viz.—

Again let x = the true profit of the B Co., and y that of C Co.,

then
$$\begin{array}{ll} (1) & x = -£5{,}000\text{[1]} + \tfrac{1}{5}y, \text{ and} \\ (2) & y = £10{,}000 + \tfrac{1}{8}x \\ (3) & 5x - y = -£25{,}000 \\ (4) & -x + 8y = £80{,}000 \text{ and } y = \underline{\underline{£9615}} = \text{C Co.'s true profit at 1st Jan.} \end{array}$$

Substituting this value in (3) we get: $5x = -£25{,}000 + £9615$

and $x = \underline{\underline{-£3077}}$ = B Co.'s true loss at 1st Jan.

4. The true position with regard to the profits earned during the year must also be found and this will be as follows—

Let x = the true profit of B Co. for the year, and y that of the C. Co.

then
$$x = £16{,}000 + \tfrac{1}{5}y, \text{ and}$$
$$y = £25{,}000 + \tfrac{1}{8}x,$$

whence we get
$$5x - y = £80{,}000, \text{ and}$$
$$-x + 8y = £200{,}000$$

and $x = \underline{\underline{£21{,}538}}$ which is the true profit belonging to the B Co.

and $y = \underline{\underline{£27{,}692}}$ „ „ „ „ „ C Co.

[1] The B Co. had a debit balance on its Profit and Loss Account, and hence this sum is a minus quantity.

5. The price paid by the A Co. for the shares in the B Co.

		£
Was		206,250
The value of these shares on 1st Janury was—		
75% of the Issued Capital of £200,000 .	£150,000	
75% of the true Reserve (See Note 2 above)	71,539	
	£221,539	
Less 75% of the balance to the debit of Profit and Loss Account as at 1st January (Note 3) . . .	2,308	
		219,231
The value of the shares exceeds the price paid for them by		£12,981

This excess of value is in the nature of "Badwill" and could be carried to a Capital Reserve or used to write down intangible assets. It will be applied as a reduction of the figure of Goodwill.

6. The purchase price of the shares in the C Co. acquired by the A Co.

		£
Was		115,000
These shares were worth the following figure on 1st January—		
60% of the Issued Capital of £100,000 .	£60,000	
60% of the true Reserve at 1st January (See Note 2 above)	31,154	
60% of the true Profit at 1st January (Note 3)	5,769	
		96,923
The amount paid for Goodwill was . .		£18,077

7. The A Co. owns 75 per cent of the shares in the B Co., and the C Co. also possesses $12\frac{1}{2}$ per cent, and the balance of $12\frac{1}{2}$ per cent is due to the minority shareholders. The amount due to such outside shareholders is made up as follows—

	£
One-eighth of Share Capital of £200,000 . .	25,000
,, true Reserve of £95,385 (Note 2) .	11,923
,, true Profit for Year, i.e. £21,538 (Note 4)	2,692
	£39,615
Less one-eighth of debit balance on Profit and Loss Account at 1st January = £3077 (Note 3)	385
TOTAL	£39,230

8. Sixty per cent of the shares of the C Co. are held by the A Co., and 20 per cent are in the possession of the B Co., and thus minority shareholders have a 20 per cent holding also. The last named is valued as follows—

	£
20% of the Issued Capital of £100,000 . . .	20,000
20% of the true Reserve of £51,923 (Note 2) .	10,384
20% of the true Profit at 1st January, i.e. £9615 (Note 3)	1,923
20% of the true Profit for Year of £27,692 (Note 4) .	5,538
TOTAL	£37,845

9. The holdings of the B and C companies in one another have apparently been acquired at par, and these two items must be offset against the items of capital in the other company.

The Consolidated Statement can now be prepared from the columnar Balance Sheet as follows[1]—

COLUMNAR STATEMENT SHOWING THE BALANCE SHEETS OF THE A, B, AND C COMPANIES, AND THE ASSETS AND LIABILITIES OF THE CONSOLIDATED GROUP AS AT 31ST DECEMBER

	A Co.	B Co.	C Co.	Adjustments	Consolidated Statement
ASSETS	£	£	£	£	£
Plant	190,000	110,000	50,000		350,000
Stock	68,750	170,000	100,000		338,750
Debtors	70,000	200,000	120,000		390,000
Cash at Bank . .	25,000	71,000	80,000		176,000
Shares in the B Co. .	206,250		25,000	− 206,250(5) − 25,000(9)	
Shares in the C Co. .	115,000	20,000		− 115,000(5) − 20,000(9)	
Profit and Loss Balance at 1st January .		5,000		− 2,308(6) − 385(7) − 2,307 *	
Goodwill . . .				+ 18,077(6) − 12,981(5)	5,096
	£675,000	£576,000	£375,000		£1,259,846
LIABILITIES					
Issued Share Capital .	300,000	200,000	100,000	− 150,000(5) − 60,000(6) − 25,000(7) − 20,000(8) − 25,000(9) − 20,000(9)	300,000
Reserve . . .	100,000	85,000	40,000	− 71,539(5) − 31,154(6) − 11,923(7) − 10,384(8)	100,000
Profit and Loss Balance at 1st January .	25,000		10,000	− 5,769(8) − 1,923(8) − 2,307 *	25,001
Profit for Year . .	50,000	16,000	25,000	− 2,692(7) − 5,538(8)	82,770
	475,000	301,000	175,000		507,771
Creditors . . .	200,000	275,000	200,000		675,000
Due to Minority Shareholders . . .				+ 39,230(7) + 37,845(8)	77,075
	£675,000	£576,000	£375,000		£1,259,846

4. A COMPREHENSIVE EXAMPLE

The combination of cross-holdings and inter-company dealings are obviously innumerable, and therefore the

[1] The total column has been omitted in the statement as it is not really necessary.

* The balance of the debit item on the Profit and Loss Account of the B Co. not written off in the adjustment has been transferred and set against the balance of profits of the other companies for the purposes of the Consolidated Statement.

following example is given as a guide to what can be done and to illustrate some of the problems which may be met with in practice—

Example 4. The following are the balances extracted from the books of the A, B, and C companies as at the 31st December, 1937—

	Parent A Co.	Subsidiaries	
		B Co.	C Co.
Debits	£	£	£
Goodwill		20,000	10,000
Land and Buildings	170,000	100,000	30,000
Plant and Machinery	100,000	90,000	31,000
Furniture and Fittings	10,000	5,000	
Investment in 120,000 Ordinary Shares in B Co. at Cost	154,000		
Investment in 65,000 Ordinary Shares in C Co. at Cost	95,000		
Investment in 10,000 Ordinary Shares in B Co. at Cost			15,000
Investment in 15,000 Ordinary Shares in C Co. at Cost		19,000	
Investment in 30,000 Ordinary Shares in A Co. at Cost		45,000	
Shares in Associated Companies at Cost	80,000		
Stock at 1st Jan., 1937	70,000	20,000	8,000
Purchases for Year	200,000	108,500	52,000
Wages and Salaries	15,000	5,000	2,000
Debenture Interest Paid	2,500		
Distribution Expenses	7,000	1,500	5,000
General and Administration Expenses	8,000	5,000	3,000
Debtors	67,000	37,350	20,000
Cash at Bank and in Hand	10,000	12,000	3,000
Loan to B Co.	20,000		
Loan to an Associated Company	15,000		
Bills Receivable	15,000	25,000	18,000
Motor Lorries	5,000	3,000	1,000
Investments at Cost	27,500		
Ordinary Dividends paid 1st April, 1937	25,000	14,000	7,000
Preference Dividends paid 31st Mar. and 30th Sept., 1937		3,000	
	£1,096,000	£513,350	£205,000

	Parent A Co.	Subsidiaries	
		B Co.	C Co.
Credits			
Issued Share Capital—			
In Ordinary Shares of £1 each .	500,000	200,000	100,000
6% Preference Shares of £1 each .		50,000	
5% Debentures, Interest payable 1st Jan. and July . . .	100,000		
4% Debentures, Interest payable 1st Jan. and July . . .		50,000	
Profit and Loss Account, Balance 1st Jan., 1937	50,000	20,000	10,000
Sales	300,000	150,000	72,900
Dividends received from—			
B Co.	8,400		
C Co.		1,050	
Associated Companies . .	6,000		
Investments	1,375		
Discounts Received	250	150	100
Creditors	24,975	9,650	12,000
Bills Payable	5,000	2,500	
Loan from A Co.		20,000	
Reserve as at 1st Jan., 1937 . .	100,000	10,000	10,000
	£1,096,000	£513,350	£205,000

It is required to prepare the Trading and Profit and Loss Accounts and Balance Sheets for each of the Companies and also the Consolidated Statements after taking the following facts into consideration—

1. The dividends on the Ordinary shares paid in April, 1937, are in respect of the year 1936. The profits shown to the credit of the B Co. on 1st January, 1937, were the actual profits made by that company during 1936.

2. The A Co.'s holding of shares in the B Co. were acquired as follows—

(*a*) 20,000 were bought on 1st October, 1936, for £24,000, and

(*b*) the balance of 100,000 was purchased on 1st March, 1937, at a cost of £130,000.

3. The shares in the C Co. were acquired by the A Co. on 1st October, 1937.

4. The B Co. bought its holding in the C Co. on 1st February, 1937.

5. The shares in the B Co. held by C Co. were purchased by it on 1st May, 1937.

6. The B Co. obtained its shares in the A Co. on 1st July, 1937, on which date the B Co. issued its Debentures. No interest has yet been paid on such Debentures.

7. No interest for the second half of the year 1937 on the Debentures of the A Co. has been taken into account.

8. The loans to the Associated Companies carry interest at 6 per cent per annum as from 1st September, 1937.

9. The loans to the Subsidiary Companies were made on 1st May, 1937, and interest at 6 per cent per annum is to be charged thereon.

10. The stocks in hand at 31st December, 1937, were: A Co., £65,000; B Co., £15,000; and C. Co. £7900.

11. Inter-company transactions during the year were as follows—

B Co. sold goods to A Co. for £20,000 which included 25 per cent profit; and to the C Co. for £2400 at 20 per cent profit.

C Co. sold goods to A Co. for £9000, making 20 per cent profit thereon.

12. Of the goods bought from other companies in the group, A Co. held in Stock at 31st December, 1937, £2000 of the goods supplied by B Co. and £1200 of those obtained from C Co. B Co. held £600 of the goods bought from C Co.

13. A Reserve for doubtful debts of 5 per cent on the amount of the Debtors is to be made by each company.

14. Depreciation is to be charged as follows—

10 per cent per annum on Plant and Machinery, 20 per cent on Lorries, and 5 per cent on Furniture and Fittings.

Notes of the Adjustments and Eliminations to be Made for the Consolidated Statements

1. Inter-company transactions must be eliminated from the Consolidated Statements: Purchases and Sales must be reduced by £31,400; while the debit in the books of the A Co. in respect of the loan to the B Co. and the interest thereon will offset the credit to the A Co. in the books of the B Co.

2. As those portions of the stock in hand which were acquired from other companies within the group include profit made by the selling company (which profit must be taken into account by the company selling in order that minority shareholders shall receive their share of the profit made on their company's trading), such profit must be eliminated from those of the group as a whole. To do this, stocks must be reduced as follows—

	£
$\frac{25}{125}$ of the £2000 stock held by A and acquired from B	400
$\frac{20}{120}$ of the stock held by A and bought from C (£1200)	200
$\frac{20}{120}$ of £600 stock held by B and purchased from C	100
Total	£700

3. The A Co. has to charge accrued interest for six months on its 5 per cent Debenture issue of £100,000. This amounts to £2500.

4. B Co. must take into account accrued interest for six months on its 4 per cent Debentures and this equals £1000.

5. The B Co. must be charged with interest at 6 per cent per annum for eight months on its loan from the A Co., and A's profit increased. This amounts to £800.

The Associated Companies must also be debited by the A Co. with 6 per cent on their loan for four months, and A's profit credited. The sum is £300.

6. The Reserves for Doubtful Debts will be: A Co., £3350; B Co., £1867 10s.; and C Co., £1000.

7. The Depreciation to be charged is as below—

A Co.: Plant, £10,000; Motor Lorries, £1000; Furniture, etc., £500; Total, £11,500.
B Co.: Plant, £9000; Motor Lorries, £600; Furniture, etc., £250; Total £9850.
C Co.: Plant, £3100; Motor Lorries, £200; Total, £3300.

8. The dividend of £8400 received by the A Co. in respect of its holding of shares in the B Co. must be apportioned.

Part of the dividend is in respect of the 20,000 shares bought on 1st October, 1936, and amounts to £1400. Of this amount one-quarter or £350 would represent earnings on the shares for the three months, October to December, and would therefore be included in the income of A Co., though in the Consolidated Statement it will be eliminated as it is cancelled by the payment made by B Co.

The remainder of this dividend is really a recovery of part of the price paid for the shares on purchase and should be set against such cost. This will affect the amount paid as premium or Goodwill and therefore will be set as a credit to the Goodwill Account.

9. The dividend received by the B Co. from the C Co. is also in respect of profits made in the year prior to the purchase of the shares, and is thus also a recovery of part of the price paid. It will be treated as outlined in (8) above.

Trading and Profit and Loss Statement

	A Co.		B Co.		C Co.		Total		Adjustments	Consolidated Statement	
	£	£	£ s. d.	£ s. d.	£	£	£ s. d.	£ s. d.	£	£ s. d.	£ s. d.
.		300,000		150,000 0 0		72,900		522,900 0 0	— 31,400(1)		491,500 0 0
ist Jan.	70,000		20,000 0 0		8,000		98,000 0 0			98,000 0 0	
ses for Year	200,000		108,500 0 0		52,000		360,500 0 0		— 31,400(1)	329,100 0 0	
	270,000		128,500 0 0		60,000		458,500 0 0			427,100 0 0	
ock, 31st Dec.	65,000		15,000 0 0		7,900		87,900 0 0		— 700(2)	87,200 0 0	
OST OF GOODS SOLD	205,000		113,500 0 0		52,100		370,600 0 0			339,900 0 0	
iation of Plant(7)	10,000	215,000	9,000 0 0	122,500 0 0	3,100	55,200	22,100 0 0	392,700 0 0		22,100 0 0	362,000 0 0
ROSS PROFIT		85,000		27,500 0 0		17,700		130,200 0 0	— 700(2)		129,500 0 0
scounts Received		250		150 0 0		100		500 0 0			500 0 0
vidend from B Co.(8)		350						350 0 0	— 350(8)		
vidend from Associated Companies(10)		6,000						6,000 0 0			6,000 0 0
vidend from Investments(5)		1,375						1,375 0 0			1,375 0 0
terest on Loan to Subsidiary Company(5)		800						800 0 0	— 800(1)		
terest on Loan to Associated Company(5)		300						300 0 0			300 0 0
		94,075		27,650 0 0		17,800		139,525 0 0			137,675 0 0
ses, etc.—											
es and Salaries	15,000		5,000 0 0		2,000		22,000 0 0			22,000 0 0	
enture Interest paid	2,500						2,500 0 0			2,500 0 0	
enture Interest accrued(3)	2,500		1,000 0 0				3,500 0 0			3,500 0 0	
ribution Expenses	7,000		1,500 0 0		5,000		13,500 0 0			13,500 0 0	
eral Administration Expenses	8,000		5,000 0 0		3,000		16,000 0 0			16,000 0 0	
eciation: Lorries(7)	1,000		600 0 0		200		1,800 0 0			1,800 0 0	
Furniture(7)	500		250 0 0				750 0 0			750 0 0	
n Interest(5)			800 0 0				800 0 0		— 800(1)		
Debts(6)	3,350	39,850	1,867 10 0	16,017 10 0	1,000	11,200	6,217 10 0	67,067 10 0		6,217 10 0	66,267 10
NET PROFIT		£54,225		£11,632 10 0		£6,600		£72,457 10 0			£71,407 10 0

APPROPRIATION ACCOUNTS

	A Co.		B Co.		C Co.		Total		Adjustments	Consolidated Statement	
e, 1st Jan. 1937		50,000		20,000 0 0		10,000		80,000 0 0			
for Year as above		54,225		11,632 10 0		6,600		72,457 10 0			
		104,225		31,632 10 0		16,600		152,457 10 0			
ence Dividend paid			3,000 0 0				3,000 0 0				
ry Dividend paid		25,000	14,000 0 0	17,000 0 0		7,000	46,000 0 0	49,000 0 0			
Balance		£79,225		£14,632 10 0		£9,600		103,457 10 0			

10. The dividends received from the holdings of shares in the Associated Companies, and also from the Investments are, of course, income in the normal way and is so treated.

We can now proceed to prepare the Trading and Profit and Loss Statement, which will then appear as given on page 331.

11. The A Co. holds 20,000 shares in the B Co. (10 per cent of total issue) on 1st January, 1937, and these have been bought on 1st October, 1936

		£
For		24,000
These shares had a value on that date of—		
10% of capital of £200,000	£20,000	
10% of Reserve at that date	1,000	
10% of profit to date, viz. 10% of three-quarters of year's profit of £20,000[1]	1,500	
Total		22,500
Therefore the sum paid for Goodwill was		£1,500

12. On 1st February, 1937, the B Co. bought 15 per cent of the shares issued by the C Co.

		£ s. d.
For a sum of		19,000 0 0
These shares were actually worth at that date—		
15% of capital of £100,000	£15,000 0 0	
15% of Reserve of £10000	1,500 0 0	
15% of profit as at 1st Jan., 1937 (£10,000)	1,500 0 0	
15% of profit from 1st Jan. to 1st Feb., 1937, i.e. one-twelfth of £6600	82 10 0	
		18,082 10 0
Payment for Goodwill		£917 10 0

13. The A Co. on the 1st March, 1937, acquired 100,000 shares (15 per cent of total issued),

[1] It is assumed that the profits have been earned evenly over the whole year, and that no balance existed on 1st January, 1936.

			£ s. d.
For a payment of			130,000 0 0

At the date of this acquisition the B Co. owned 15 per cent of the share capital of the C Co., and thus A Co. becomes entitled to—

(*a*) 50% of B's capital of £200,000		£100,000 0 0	
(*b*) 50% of B's true Reserve. This equals £10,000 + 15% of C's Reserve of £10,000 = £11,500: 50% thereof		5,750 0 0	
(*c*) 50% of B's undistributed profit as at 1st March, 1937, made up as follows—			
Balance 1st Jan. 1937 . .	£20,000		
Deduct 5 months' dividend accrued on Preference Shares . .	1,250		
	18,750		
Add 15% of C's undistributed profits of £10,000	1,500		
Total . . .	£20,250	10,125 0 0	
(*d*) 50% of B's profit from 1st Jan. to 1st March obtained as follows— ⅙ of £12,632 10s.[1] + 15% of C's profit for the same period = ⅙ of £12,632 10s. + 15% of ⅙ of £6600 = £2105 18s. 4d. + £165 or £2270 8s. 4d.		1,135 4 2	
			117,010 4 2
There was paid for Goodwill the sum of . . .			£12,989 15 10

14. The C Co. purchased 10,000 shares (5 per cent of the total issued) on 1st May—

				£ s. d.
Paying therefor				15,000 0 0

C Co. thus obtains the right to—

5% of the amount of B's capital of £200,000 . .			£10,000 0 0	
5% of B's Reserve of £11,500. (See Note 13 (*b*) *supra*) .			575 0 0	
5% of B's undistributed profits at 1st May which are as follows—				
Balance, 1st Jan.		£20,000		
Less Preference dividend paid 31st March . . .	£1,500			
Less Preference dividend accrued to date (one month) . .	250			
Less Ordinary dividend paid 1st April, 1937 . .	14,000			
		15,750		
		4,250		
Add 15% of C's undivided profit, viz. £10,000 *less* the dividend of £7000 paid . . .		450		
		£4,700	235 0 0	
5% of B's profits from 1st Jan. to 1st May = one-third of £12,632 10s. + 15% of one-third of £6600 (C's profit) = £4540 16s. 8d.			227 0 10	
				11,037 0 10
Value of Goodwill				£3,962 19 2

[1] There was no Debenture Interest payable by the B Co. in the first six months of 1937, as the Debentures were only issued on 1st July of that year. To get the true profit for the period under consideration we must add back the £1000 interest, and this gives the figure shown and apportioned.

15. On 1st July the B Co. buys 30,000 shares (6 per cent of issue) in the A Co.—

	£	s.	d.
At a price of	45,000	0	0

At this date A Co. holds a 60 per cent interest in B Co., and the last named has a 15 per cent holding in C's shares, while C has 5 per cent of B's shares.

The B Co. actually purchases—

6% of A's capital of £500,000 . . . . . . £30,000 0 0

6% of A's Reserve. This = £100,000 + 60% of B's.
But B's Reserve = £10,000 + 15% of C's, and C's Reserve = £10,000 + 5% of B's.
Evaluating this we find that B's Reserve = £11,586 19s. 4d.
and A's Reserve = £100,000 + 60% of B's or £106,952 4s. = 6,417 2 5

6% of A's balance of profit at 1st July, i.e. £50,000 as at 1st Jan. − £25,000 dividend paid + half profit for year + 60% of B's profit. This is £25,000 + £27,112 10s. + 60% of B's.
But B's profit = £20,000 (balance at commencement of year) − £11,000 (Ordinary dividend paid) − £1500 (Preference dividend paid) − £750 (Preference dividend accrued) + one-half of £12,632 10s. (profit for half-year) + 15% of profits of C Co.
But C's profit = £10,000 − £7000 dividend paid, + one-half of £6600 + 5% of B's.
From this we find that—
B's profit = £10,066 5s. + 15% of C's, and
C's profit = £6300 + 5% of B's.
This results in—
B's profit = £11,094 9s. 2d.
and C's profit = £6854 14s. 2d.
A's profit therefore = £58,769 3s. 6d. and 6% = 3,526 3 0

39,943 5 5

Hence Goodwill is valued at	£5,056	14	7

16. A Co. bought 65,000 shares (65 per cent) in the C Co. on the 1st October—

	£	s.	d.
For	95,000	0	0

At this time C Co. holds a 5 per cent interest in B Co. who in turn holds 15 per cent of C., and 6 per cent of A, while A Co. also has 60 per cent of the shares of B Co. A Co. thus acquires—

65% of C's capital of £100,000 . . . . . . £65,000 0 0

65% of C's Reserve which = £10,000 + 5% of B's, but B's Reserve = £10,000 + 15% of C + 6% of A, and A's Reserve = £100,000 + 60% of B's.
By elimination we find that B's Reserve = £18,741 16s. 4d
and that of C Co. = £10,937 2s. 0d.
65% of this figure for C . . . . . = 7,109 2

65% of C's profit to date i.e. balance at 1st Jan. *less* dividend, *plus* profit for three-quarters of the year.
C's profit = £10,000 − £7000 + (¾ of £6600) + 5% of B.
B's profit = £20,000 − £17,000 + (½ of £12,632 10s.) + (¼ of £11,632 10s.)[1] + 15% of C + 6% of A.
A's profit = £50,000 − £25,000 + (¾ of £54,225) + 60% of B.
From this we find that B's profit is £18,146 7s. 4d.
and C's profit = £8857 6s. 5d.: 65% thereof = 5,757 5 4

77,866 7 7

[illegible]

17. The following table shows the distribution of the Shareholdings—

Company in which Shares are Held	Total	A Co.	B Co.	C Co.	Minority Holdings
	£	£	£		£
A Co. Ordinary .	500,000		30,000		
B Co. Preference .	50,000				50,000
B. Co. Ordinary .	200,000	120,000		10,000	70,000 (35%)
C Co. . . .	100,000	65,000	15,000		20,000 (20%)

18. It is also necessary to ascertain the true Reserves of the B and C companies in order that the minority shareholders may be credited with their proper proportions of these. They will be found as follows—

	£	s.	d.
Reserve of A Co. = £100,000 + 60% of B + 65% of C . .	118,354	4	0
,, ,, B Co. = £10,000 + 15% of C + 6% of A . .	18,741	16	4
,, ,, C Co. = £10,000 + 5% of B	10,937	2	0

19. The true profits of the companies must also be found in a similar manner, viz.—

	£	s.	d.
A Co. = £79,225 + 60% of B + 65% of C	99,015	7	4
B Co. = £12,632 10s. − £750 (accrued Preference dividend) + 15% of C + 6% of A	21,425	10	0
C Co. = £9600 + 5% of B	10,671	3	6

20. The following sums are due to the Debenture-holders of the B Co. and to the minority shareholders and Preference shareholders in the B and C companies—

	B Co. £	s.	d.	*C Co.* £	s.	d.
Debentures	50,000	0	0			
Interest accrued thereon	1,000	0	0			
	£51,000	0	0			
Preference shares [1]	50,000	0	0			
One quarter's dividend accrued	750	0	0			
Ordinary shares	70,000	0	0	20,000	0	0
Reserve—						
B Co.: 35% of £18,741 16s. 4d.(18)	6,559	12	8			
C Co.: 20% of £10,937 2s. 0d.(18)				2,187	8	5
Profits—						
B Co.: 35% of £21,425 10s.(19)	7,498	18	6			
C Co.: 20% of £10,671 3s. 6d.(19)				2,134	4	8
	£134,808	11	2	£24,321	13	1

[1] The liability to outside shareholders in respect of Preference Shares held by them does not really affect the capital, as it is actually a liability to third parties and is so treated here.

21. In order to avoid a large number of adjustments appearing in the columnar Balance Sheets when constructing the Consolidated Statement a summary of the changes can be prepared as illustrated on the opposite page.

Note No.	Ordinary Share Capital	Preference Share Capital	Reserve	Profit and Loss	Stock	Goodwill	Holdings of Shares	Minority Shareholders
	£	£	£ s. d.	£ s. d.	£	£ s. d.	£	£ s. d.
1				− 700 0 0	− 700			
8						− 8,050 0 0		
9						− 1,050 0 0		
11	− 20,000		− 1,000 0 0	− 1,500 0 0		+ 1,500 0 0	− 24,000	
12	− 15,000		− 1,500 0 0	− 1,582 10 0		+ 917 10 0	− 19,000	
13	− 100,000		− 5,750 0 0	− 11,260 4 2		+ 12,989 15 10	− 130,000	
14	− 10,000		− 575 0 0	− 462 0 10		+ 3,962 19 2	− 15,000	
15	− 30,000		− 6,417 2 5	− 3,526 3 0		+ 5,056 14 7	− 45,000	
16	− 65 000		− 7,109 2 3	− 5,757 5 4		+ 17,133 12 5	− 95,000	
20	− 70,000	− 50,000	− 6,559 12 8	{ − 750 0 0 − 7,498 18 6 }				+ 134,808 11 2
20	− 20,000		− 2,187 8 5	− 2,134 4 8				+ 24,321 13 1
TOTAL	− £330,000	− £50,000	− £31,098 5 9	− £35,171 6 6	− £700	+ £32,460 12 0	− £328,000	+ £159,130 4 3

ALANCE SHEETS OF THE A, B, AND C COMPANIES AND CONSOLIDATED STATEMENT OF THE GROUP AS AT 31ST DECEMBER, 1937

	A Co.	B Co.	C Co.	Total	Adjustments	Consolidated Statement
ASSETS	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
oodwill		20,000 0 0	10,000 0 0	30,000 0 0	+ 32,460 12 0	62,460 12 0
ınd and Buildings	170,000 0 0	100,000 0 0	30,000 0 0	300,000 0 0		300,000 0 0
ant and Machinery, less depreciation	90,000 0 0	81,000 0 0	27,900 0 0	198,900 0 0		198,900 0 0
ırniture, etc., less depreciation	9,500 0 0	4,750 0 0		14,250 0 0		14,250 0 0
otor Lorries less depreciation	4,000 0 0	2,400 0 0	800 0 0	7,200 0 0		7,200 0 0
oldings of Shares in B Co	154,000 0 0		15,000 0 0	169,000 0 0		
" " " C Co.	95,000 0 0	19,000 0 0		114,000 0 0	− 328,000 0 0	
" " " A Co.		45,000 0 0		45,000 0 0		
ıvestments in Associated Companies	80,000 0 0			80,000 0 0		80,000 0 0
oan to B Co. and interest accrued	20,800 0 0			20,800 0 0	− 20,800 0 0	
oan to Associated Company and interest accrued	15,300 0 0			15,300 0 0		15,300 0 0
ıvestments	27,500 0 0			27,500 0 0		27,500 0 0
ock, 31st December, 1937	65,000 0 0	15,000 0 0	7,900 0 0	87,900 0 0	− 700 0 0	87,200 0 0
ebtors	67,000 0 0	37,350 0 0	20,000 0 0	124,350 0 0		124,350 0 0
ills Receivable	15,000 0 0	25,000 0 0	18,000 0 0	58,000 0 0		58,000 0 0
ısh at Bank and in Hand	10,000 0 0	12,000 0 0	3,000 0 0	25,000 0 0		25,000 0 0
	£823,100 0 0	£361,500 0 0	£132,600 0 0	£1,317,200 0 0		£1,000,160 12 0
LIABILITIES						
ıpital Issued: Preference Shares		50,000 0 0		50,000 0 0	− 50,000 0 0	
Ordinary Shares	500,000 0 0	200,000 0 0	100,000 0 0	800,000 0 0	− 330,000 0 0	470,000 0 0
eserve	100,000 0 0	10,000 0 0	10,000 0 0	120,000 0 0	− 31,098 5 9	88,901 14 3
rofit and Loss Account—Balance	79,225 0 0	14,632 10 0	9,600 0 0	103,457 10 0	− 35,171 6 6	68,286 3 6
ividends received from Subsidiaries	8,050 0 0	1,050 0 0		9,100 0 0	− 9,100 0 0	
	687,275 0 0	275,682 10 0	119,600 0 0	1,082,557 10 0		627,187 17 9
ebentures	100,000 0 0	50,000 0 0		150,000 0 0	− 50,000 0 0	100,000 0 0
ıterest accrued hereon	2,500 0 0	1,000 0 0		3,500 0 0	− 1,000 0 0	2,500 0 0
ad Debts Reserve	3,350 0 0	1,867 10 0	1,000 0 0	6,217 10 0		6,217 10 0
reditors	24,975 0 0	9,650 0 0	12,000 0 0	46,625 0 0		46,625 0 0
ills Payable	5,000 0 0	2,500 0 0		7,500 0 0		7,500 0 0
oan from A Co. and interest accrued		20,800 0 0		20,800 0 0	− 20,800 0 0	
ebenture-holders of B Co.					+ 51,000 0 0(1)	51,000 0 0
ıinority Shareholders					+ 159,130 4 3	159,130 4 3
	£823,100 0 0	£361,500 0 0	£132,600 0 0	£1,317,200 0 0		£1,000,160 12 0

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APPENDICES

APPENDIX A. Form of Balance Sheet recommended by the Federal Reserve Board, U.S.A.

APPENDIX B. Statement of Manufacturing, Trading, and Profit and Loss.

APPENDIX C. A Model Balance Sheet giving effect to the requirements of the Companies Act, 1929.

APPENDIX D. Comparative Balance Sheets.

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APPEN

The following is the form of Balance Sheet recommended by the credit from banks—

ASSETS		$	$
CASH			
1*a*. Cash on hand—currency and coin		....	
1*b*. Cash in Bank		....	....
NOTES AND ACCOUNTS RECEIVABLE			
3. Notes receivable of customers on hand (not past due)		....	
5. Notes receivable discounted or sold with endorsement or guarantee		....	
7. Accounts receivable, customers' (not past due)		....	
9. Notes receivable, customers', past due (cash value $)		....	
11. Accounts receivable, customers', past due (cash value $)		....	
		....	
13. *Less* Provision for Bad Debts	....		
15. " " discounts, freights, allowances, etc.	....		....
INVENTORIES			
17. Raw Material on hand		....	
19. Goods in Process		....	
21. Uncompleted Contracts	....		
Less Payments on account thereof	....	....	
23. Finished Goods on hand		....	
OTHER QUICK ASSETS (describe fully)			
....		....	
....		....	....
TOTAL QUICK ASSETS (excluding all investments)			....
SECURITIES			
25. Securities readily marketable and saleable without impairing the business		....	
27. Notes given by officers, stockholders, or employees		....	
29. Accounts due from officers, stockholders, or employees		....	....
TOTAL CURRENT ASSETS			....
FIXED ASSETS			
31. Land used for Plant		....	
33. Buildings used for Plant		....	
35. Machinery		....	
37. Tools and Plant Equipment		....	
39. Patterns and Drawings		....	
41. Office Furniture and Fixtures		....	
43. Other Fixed Assets, if any (describe fully)		....	
Less Reserves for Depreciation		....	
TOTAL FIXED ASSETS			....
DEFERRED CHARGES			
47. Prepaid Expenses, Interest, Insurance, etc.		....	....
OTHER ASSETS, if any			....
TOTAL ASSETS			

DIX A

Federal Reserve Board of the U.S.A. to be used by businesses seekin

LIABILITIES	$	$
Bills, Notes, and Accounts Payable		
Unsecured Bills and Notes—		
2. Acceptances given for merchandise or raw material purchased	....	
4. Notes given for merchandise or raw material purchased	....	
6. ,, ,, to banks for money borrowed	....	
8. ,, sold through brokers	....	
10. ,, given for machinery, additions to plant, etc.	....	
12. ,, due to stockholders, officers, or employees	....	....
Unsecured Accounts		
14. Accounts payable for purchases (not yet due)	....	
16. ,, ,, ,, ,, (past due)	....	
18. ,, ,, to stockholders, officers, or employees	....	....
Secured Liabilities		
20*a*. Notes receivable, discounted, or sold with endorsement or guarantee (*contra*)	....	
20*b*. Customers' accounts discounted or assigned (*contra*)	....	
20*c*. Obligations secured by liens on inventories	....	....
22. Accrued liabilities, interest, wages, taxes, etc.	....	
Other Current Liabilities (describe fully)	....	....
Total Current Liabilities		....
Fixed Liabilities		
24. Mortgages on Plant (due date ....)	....	
26. ,, ,, other Real Estate (due date ....)	....	
28. Chattel mortgage on Machinery or Equipment (due date ....)	....	
30. Bonded Debt (due date ....)	....	
32. Other fixed liabilities (describe fully)	....	
	....	....
Total Liabilities		....
Net Worth		
34. If a Corporation—		
(*a*) Preferred Stock (less Stock in Treasury)	....	
(*b*) Common Stock (less Stock in Treasury)	....	
(*c*) Surplus and undivided profit	....	
Less—		
(*d*) Book Value of Goodwill		
(*e*) Deficit	....	....
36. If an individual or partnership—		
(*a*) Capital	....	
(*b*) Undistributed profits or deficit	....	....
Total		....

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